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Annotated checklist of Pteromalidae (Hymenoptera, Chalcidoidea) in the Middle East and North Africa

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ABSTRACT. Species of the family Pteromalidae from the Middle East countries are reviewed. A total of 445 species within 134 genera and 17 subfamilies are recorded from 20 countries including Algeria (25 genera, 37 species), Egypt (27 genera, 37 species), Iran (84 genera, 211 species), Iraq (13 genera, 18 species), Israel (34 genera, 53 species), Jordan (8 genera, 9 species), Kuwait (1 genus, 1 species), Lebanon (5 genera, 5 species), Libya (9 genera, 10 species), Morocco (71 genera, 122 species), Oman (3 genera, 5 species), Palestine (5 genera, 5 species), Saudi Arabia (10 genera, 14 species), Syria (11 genera, 15 species), Tunisia (15 genera, 17 species), Turkey (75 genera, 236 species), United Arab Emirates (7 genera, 7 species), Yemen (27 genera, 45 species). There are no published records from Pteromalidae from Bahrain and Qatar. On the basis of the new findings in this study, 22 species in 15 genera are collected and identified from various regions of Iran. Among them, the genera *Blascoa* Askew, 1997 and *Plutothrix* Förster, 1856 and three species, *Blascoa ephedrae* Askew, 1997, *Plutothrix trifasciata* (Thomson, 1878) and *Homoporus pulchripes* Erdős, 1953 are newly recorded for the fauna of Iran, the genus *Blascoa* Askew and three species are new for the Middle East fauna. Biogeographically, the species of Pteromalidae recorded from the Middle East are widely distributed in the Western Palaearctic region. Of which, 268 species were found only throughout the Palaearctic with no records from other regions. Among the countries of the Middle East, the highest percentage of endemism for Pteromalidae species were found in Turkey (56 species, 12.6%) and Yemen (25 species, 5.6%), later country representing the fauna of both Palaearctic and Afrotropical regions. The distribution in the Middle East and zoogeographical distribution For each species are presented.

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INTRODUCTION

The family Pteromalidae is one of the largest and economically important groups of parasitic wasps (Hymenoptera, Chalcidoidea), with a cosmopolitan distribution. Pteromalidae comprises an assemblage of morphologically and numerically diverse taxa with more than 4,000 described species belonging to 641 genera in 33 subfamilies (Noyes, 2019). Based on recent molecular and morphological analysis, some of these subfamilies are erected as independent families in the superfamily Chalcidoidea (personal communication, J.-Y. Rasplus). The Pteromalidae have retained many primitive character states and thus are currently defined negatively relative to other chalcidoid groups (Bouček & Heydon, 1997). This group is generally regarded as being paraphyletic or polyphyletic and the typical dumping ground for unplaced taxa within the Chalcidoidea (Campbell et al., 2000). The members of this family have a great diversity of hosts and attack many insects of different orders and even the spider egg-sacs (Bouček & Heydon, 1997). From an economic point of view, the pteromalids ranked after some other chalcidoid wasps (e.g. Aphelinidae, Encyrtidae, Eulophidae), though a number of species are successfully used for biological pest control (e.g. against synanthropic flies - Baur, 2015a). Much research on the biology of species of the genus *Spalangia* Latreille, 1805 and their value in the biological control of synanthropic flies has been conducted because many of these are associated with the dung of domesticated animals. Species of Eunotinae attack the mealybugs (Pseudococcidae), because of their value in biological control many species have been imported into several countries throughout the world (Bouček & Heydon, 1997).

The “Middle East” mainly is a political word, by which the variable lists of the countries from the Central to Western Asian area (Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, United Arab Emirates, Yemen) and the Northern African countries (Algeria, Egypt, Libya, Morocco, Tunisia), as well as Turkey, as a small chunk of Europe were defined (Beaumont et al., 2016). Environmentally, the Middle East area includes several distinct regions, encompassing some large topological varieties, and environmental contrasts even within individual

countries (Kort, 2008; Elgendy, 2011). The wide desertic spots inside the countries and the various natural barriers made several isolated areas with or without connecting corridors led to the creation of several endemic biological patches (see Ma et al., 2010; Rakhshani et al., 2019). Considering such a vast and complicated habitat diversity which is more or less affected by the agricultural intensifications, an unpredictable range of diversity in the fauna and flora, representing elements of various biogeographical regions is expected (Albert et al., 1998). The whole area is a complex of rather rich ecozones both from the Eastern and Western Palaearctic regions, feed by the elements of the Afrotropics and the Oriental regions (Krupp et al., 2009).

In general, the Pteromalid fauna of the countries in the Middle East area is very poorly studied. The sporadically early evidences (Hasselqvist, 1762; Klein & Perzelan, 1940; Priesner & Hosny, 1940) were supplemented by the various taxonomical and revisionary works (Delucchi, 1955, 1962a, 1962b; Bouček, 1965, 1976; Kogan & Legner, 1970; Galil & Copland, 1981; Haeselbarth, 1983; Doğanlar, 1985, 1986, 1987, 2006, 2007; Sadeghi & Ebrahimi, 2001; Vago, 2002; Doğanlar & Bolu, 2004; Doğanlar & Yiğit, 2005; Narendran et al., 2006, 2007; Narendran & van Harten, 2007a, 2007b; Lotfalizadeh & Gharali, 2008; Alipanah et al., 2013; Bayegan et al., 2014; Damavandian & Feli Kohikheili, 2015), revealed existence of many taxa of Pteromalidae in these regions. A major part of the faunistic data sourced from the works focused on the biological control programs of the insect pests (e.g. Kaschef, 1961; Lal & Naji, 1979a, 1979b; Abu-Yaman, 1973; Abbas et al., 1985; Abdul-Rassoul, 1990; Behbahani et al., 1995; Ahmed, 1996; Lotfalizadeh & Ahmadi, 1998; Alahmed, 1999; Mashhadi-Jafarloo & Talebi Chaichi, 2002; Kumral & Kovanci, 2004; Awamelah et al., 2009; Ali et al., 2015; Lotfalizadeh et al., 2015; Boukhris-Bouhachem et al., 2016).

In recent years, several faunistic or taxonomic works of this family has been done in some countries especially in Iran (Lotfalizadeh & Gharali, 2008; Mitroiu et al., 2011; Hasani et al., 2011, Hasani & Madjdzadeh, 2012; Mahdavi & Madjdzadeh, 2013; Dehdar & Madjdzadeh, 2013; Mahdavi et al., 2015; Dehdar & Madjdzadeh, 2016; Abolhassanzadeh et al., 2017; Moravvej et al., 2018; Lotfalizadeh et al., 2019a, 2019b, 2020; Rahmani et al., 2019a, 2019b, 2020b, 2020c, 2021; Shojaey et al., 2019, 2020, 2021; Gibson et al., 2021) and Turkey (Doğanlar, 2006, 2007, 2017, 2018a, 2018b, 2018c, 2018d, 2019, 2020a, 2020b, 2021; Doğanlar & Yiğit, 2019; Doğanlar et al., 2018). Few attempts on other countries, Morocco (Vago, 2002; Kissayi et al., 2019, 2021), Oman (Soliman et al., 2019), Saudi Arabia (Ghramh & Ahmad, 2014; Soliman et al., 2019), Tunisia (Harbi et al., 2015; Ben Hamouda et al., 2018), United Arab Emirates (van Noort & Rasplus, 2010; van Noort et al., 2013) and Yemen (van Noort & van Harten, 2006; Narendran et al., 2006; Narendran & van Harten, 2007a, 2007b; Narendran et al., 2007; Narendran & van Harten, 2011; Narendran & Ignatius, 2011; Jansta, 2012) indicate the representative elements of the Palaearctic and Afrotropical regions. In this paper, we present a checklist of all known species of Pteromalidae in the Middle East area, with emphasis on their general geographical distribution. Faunal analysis of the Pteromalidae throughout the whole complex area of the Middle East is also provided.

MATERIAL AND METHODS

The published data on the family Pteromalidae from 20 countries (Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Palestine, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, United Arab Emirates, Yemen), wherever exist in the Middle East and North Africa are listed. Classification and nomenclature of the taxa followed Noyes (2019). Data about the general distribution of the listed species were compiled from the selected relevant literature (mainly of Noyes, 2019, otherwise stated) and presented in a biogeographical sequence.

A recent series of specimens were collected from various regions in Iran using Malaise traps and sweep nets during 2013–2021. Specimens were card mounted and identified using relevant identification keys and the original descriptions (Erdős, 1953; Graham, 1969; Rasplus, 1989; Dzhankmen, 2009; Doğanlar & Doğanlar, 2010). Photographs from the newly recorded species were taken using Canon®

EOS 700D (Canon® Inc., Japan) camera mounted with an adapter on Hund® Stereomicroscope (Wetzlar Inc., Germany) and merged into a single in-focus stack using Zeren stacker®, version 1.04. Plates were composed in Photoshop® CS5. The studied specimens are deposited in the collection of the Department of Plant Protection, University of Zabol, Iran (DPPZ). The morphological term used for providing the diagnosis sections followed Gibson (1997).

The depositories for the type specimens of the recorded species (where exist) are also compiled and supplemented to the taxonomical data of each species. The following acronyms are used for the depositories: **AMUZ** - Zoological Museum, Aligarh Muslim University, Uttar Pradesh, India; **ANIC** - Australian National Insect Collection, Canberra, Australia; **CIRA** - CIRAD, Montpellier, France; **CNC** - Canadian National Collection, Ottawa, Canada; **CUTT** - Plant Protection Department, Cumhuriyet Universitesi, Tokat Ziraat Fakültesi, Turkey; **DEZP** - Dipartimento di Entomologia e Zoologia Agraria, Università di Napoli, Portici, Italy; **DZUC** - Department of Zoology, University of Calicut, Kerala, India; **EMET** - Atatürk Universitesi, Faculty of Agriculture, Entomology Museum, Erzurum, Turkey; **ETHZ** - Entomologisches Institute der E.T.H., Zurich, Switzerland; **FUSA** - Faculté universitaire des Sciences Agronomiques, Unité de Zoologie générale et Appliquée, Gembloux, Belgium; **HDOU** - Hope Department, Oxford University, Oxford, England; **HMIM** - Hayik Mirzayans Insect Museum, Iranian Research Institute of Plant Protection, Tehran, Iran; **HNHM** - Hungarian Natural History Museum, Budapest, Hungary; **INHS** - Illinois Natural History Survey, Urbana, Illinois, USA; **INPC** - Indian Agricultural Research Institute, National Pusa Collections, Delhi, India; **IZCAS** - Institute of Zoology, Academy of Sciences, Beijing, China; **KSMA** - King Saud University Museum of Arthropods, Plant Protection Department, Riyadh, Saudi Arabia; **LSUK** - Linnaeus Collection, Linnean Society, London, England; **MCES** - Museum of the Center for Entomological Studies, Ankara, Turkey; **MGAB** - Musée d'Histoire Naturelle "Grigore Antipa", Bucharest, Romania; **MHNG** - Muséum d'Histoire Naturelle, Geneva, Switzerland; **MICO** - Mitroiu Collection, Faculty of Biology, Alexandru Ioan Cuza University, Romania; **MKUT** - Insect Museum of Plant Protection Department, Agriculture Faculty, Mustafa Kemal University, Antakaya, Turkey; **MNCN** - Museo Nacional de Ciencias Naturales, Madrid, Spain; **MNHN** - Muséum National d'Histoire Naturelle, Paris, France; **MRSN** - Museo Regionale di Scienze Naturali, Torino, Italy; **MSNG** - Museo Civico di Storia Naturale, Genoa, Italy; **MZH** - Finnish Museum of Natural History, Helsinki, Finland; **MZLU** - Zoological Museum, Lund University, Sweden; **MZUF** - Museum "La Specola", Florence, Italy; **NHMUK** - The Natural History Museum, London, United Kingdom; **NHMW** - Naturhistorisches Museum, Vienna, Austria; **NHRS** - Naturhistoriska Riksmuseet, Stockholm, Sweden; **NMBE** - Naturhistorisches Museum der Burgergemeinde Bern, Berne, Switzerland; **NMID** - National Museum of Ireland, Dublin; **NMPC** - Narodni Muzeum v Praze, Prague, Czech Republic; **NMS** - National Museums of Scotland, Edinburgh, Scotland; **QM** - Queensland Museum, Brisbane, Australia; **RNMH** - Netherlands, Leiden, Naturalis Biodiversity Centre; **SAMC** - South African Museum, Cape Town, South Africa; **SDEI** - Deutsches Entomologisches Institut, Eberswalde, Germany; **SJCA** - St John's College, Agra, Uttar Pradesh, India; **TARI** - Insect Museum, Taiwan Agricultural Research Institute, Taichung, Taiwan; **UAIC** - Tucson, University of Arizona, USA; **USNM** - United States Museum of Natural History, Washington D.C., USA; **ZFMK** - Zoologisches Forschungsinstitut und Museum, Bonn, Germany; **ZISP** - Zoological Institute, St Petersburg, Russia; **ZMUC** - Zoologiske Museum, Copenhagen, Denmark; **ZMUH** - Zoologisches Museum, Universität von Hamburg, Germany; **ZSM** - Zoologische Staatssammlung München, Munich, Germany. The recently collected materials are deposited in the collection of Department of Plant Protection, University of Zabol, Iran (DPPZ).

RESULTS

Totally 445 species of the family Pteromalidae in 134 genera belonging to 17 subfamilies recorded from the Middle East and North Africa are listed.

Family Pteromalidae Dalman, 1820

Subfamily Asaphinae Ashmead, 1904

Genus *Asaphes* Walker, 1834

Asaphes Walker, 1834:151. Type species: *Asaphes vulgaris* Walker, 1834, by monotypy.

Asaphes ecarinatus Narendran & van Harten, 2007

Asaphes ecarinatus Narendran & van Harten, 2007:114–116, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2007b).

Zoogeographical distribution: Afrotropical.

Asaphes suspensus (Nees, 1834)

Chrysolampus suspensus Nees, 1834:127, Lectotype ♀. – HDOU, Germany.

Distribution in the Middle East: Algeria (Ghelamallah et al., 2020), Iran (Lotfalizadeh & Gharali, 2008; Mitroiu et al., 2011; Dehdar & Madjdzadeh, 2013; Ghafouri Moghaddam et al., 2014), Israel (Gonzalez et al., 1978), Libya (Lal & Naji, 1979a), Morocco (Vago, 2002), Tunisia (Ben Halima Kamel et al., 2020), Turkey (Eastern part – Doğanlar, 1985; Alaoğlu, 1994).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Oriental, Western Palaearctic.

Asaphes vulgaris Walker, 1834

Asaphes vulgaris Walker, 1834:152, ♂♀, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Algeria (Herting, 1972), Egypt (Hafez, 1965), Iran (Nazemi Rafie et al., 2011; Ferrer-Suay et al., 2013), Israel (Rosen, 1967), Turkey (Eastern part – Özbek & Çoruh, 2012; Western part – Doğanlar, 1985; Bulut & Gocmen, 2000; Central part – Öncüler, 1991), Morocco (Delucchi, 1962b; Vago, 2002; Kissayi et al., 2019).

Zoogeographical distribution: Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oriental, Western Palaearctic.

Asaphes sp.

Distribution in the Middle East: Morocco (Mouna, 2013).

Genus *Hyperimerus* Girault, 1917

Hyperimerus Girault, 1917:5. Type species: *Hyperimerus corvus* Girault, 1917, original designation.

Hyperimerus pusillus (Walker, 1833)

Cyrtogaster pusilla Walker, 1833:383, Holotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Morocco (Benyahia, 2016).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Subfamily Ceinae Bouček, 1961

Genus *Cea* Walker, 1837

Cea Walker, 1837:355. Type species: *Cea pulicaris* Walker, 1837, by monotypy.

***Cea pulicaris* Walker, 1837**

Cea pulicaris Walker, 1837:356, ♀. – Ireland.

Distribution in the Middle East: Algeria (Askew et al., 2001), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

Subfamily Cerocephalinae Gahan, 1946**Genus *Cerocephala* Westwood, 1832**

Cerocephala Westwood, 1832:pl. 4. Type species: *Cerocephala cornigera* Westwood, 1832, by monotypy.

***Cerocephala cornigera* Westwood, 1832**

Cerocephala cornigera Westwood, 1832:pl.4, Holotype ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Egypt (Ismail et al., 1988), Israel (Mendel, 1986), Morocco (Benazoun & Schevester, 1990), Tunisia (Arambourg, 1964).

Zoogeographical distribution: Western Palaearctic.

***Cerocephala eccoptogastris* Masi, 1921**

Cerocephala eccoptogastris Masi, 1921:189, ♂♀. – MSNG, Libya.

Distribution in the Middle East: Israel (Mendel, 1986), Libya (Masi, 1921), Morocco (Benazoun, 1988), Tunisia (Zeiri et al., 2010, 2013), Turkey (Eastern part – Çelik, 1975; Western part – Yayla et al., 1995).

Zoogeographical distribution: Afrotropical, Eastern and Western Palaearctic.

***Cerocephala* sp.**

Distribution in the Middle East: Palestine (Graham, 1969).

Genus *Theocolax* Westwood, 1832

Theocolax Westwood, 1832:127. Type species: *Theocolax formiciformis* Westwood, 1832, by monotypy.

***Theocolax elegans* (Westwood, 1874)**

Choetospila elegans Westwood, 1874:137, Lectotype ♀. – HDOU.

Distribution in the Middle East: Iran (Habibpour et al., 2002; Akbari Asl et al., 2009; Lotfalizadeh & Hosseini, 2013), Israel (OILB, 1971), Morocco (Vago, 2002), Turkey (Western part – Öncüer, 1991).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

***Theocolax formiciformis* Westwood, 1832**

Theocolax formiciformis Westwood, 1832:127, ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Iran (Assemi & Shojai, 2004).

Zoogeographical distribution: Australasian, Oceanic, Western Palaearctic.

Subfamily Cleonyminae Walker, 1837**Genus *Agrilocida* Steffan, 1964**

Agrilocida Steffan, 1964:104. Type species: *Agrilocida ferrierei* Steffan, 1964, original designation and monotypy.

***Agrilocida ferrierei* Steffan, 1964**

Agrilocida ferrierei Steffan, 1964:104, Holotype ♂. – MHNG, France.

Distribution in the Middle East: Algeria (Hedqvist, 1967), Israel (Mendel, 1986).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Algeria as *Chalcedectoides saharensis* Hedqvist, 1967 (Hedqvist, 1967).

Genus *Callocleonymus* Masi, 1940

Callocleonymus Masi, 1940:289. Type species: *Callocleonymus pulcher* Masi, 1940, by monotypy.

***Callocleonymus pulcher* Masi, 1940**

Callocleonymus pulcher Masi, 1940:291, ♀. – DEZP, Somalia.

Distribution in the Middle East: Iran (Lotfalizadeh & Khalghani, 2008).

Zoogeographical distribution: Afrotropical, Eastern and Western Palaearctic (Lotfalizadeh & Khalghani, 2008).

Genus *Chalcedectus* Walker, 1852

Chalcedectus Walker, 1852:47. Type species: *Chalcedectus maculicornis* Walker, 1852, by monotypy.

***Chalcedectus balachowskyi* Steffan, 1968**

Chalcedectus balachowskyi Steffan, 1968:210, Holotype ♀. – MHNG, Iran.

Distribution in the Middle East: Iran (Steffan, 1968; Sharifi & Javadi, 1971).

Zoogeographical distribution: Western Palaearctic.

***Chalcedectus sinaiticus* (Masi, 1936)**

Neochalcedectus sinaiticus Masi, 1936:68, ♀♂. – MSNG, Israel.

Distribution in the Middle East: Algeria (Hedqvist, 1967), Egypt (Bouček, 1959), Iran (Lotfalizadeh et al., 2017), Israel (Masi, 1936; Bouček, 1959), Palestine (Masi, 1936).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Algeria as *Chalcedectes niger* Hedqvist, 1967 (Hedqvist, 1967).

Genus *Cleonymus* Latreille, 1809

Cleonymus Latreille, 1809:29. Type species: *Diplolepis depressus* Fabricius, 1804, by subsequent designation.

***Cleonymus laticornis* Walker, 1837**

Cleonymus laticornis Walker, 1837:351, Holotype ♂. – NMID, United Kingdom.

Distribution in the Middle East: Iran (Damavandian & Feli Kohikheili, 2015), Morocco (Bouček, 1972; Kissayi et al., 2019).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Cleonymus longigaster* Mitroiu, 2019**

Cleonymus longigaster Mitroiu, 2019:521, Holotype ♀. – UAIC, Morocco.

Distribution in the Middle East: Morocco (Kissayi et al., 2019).

Zoogeographical distribution: Western Palaearctic (Kissayi et al., 2019).

***Cleonymus narendrani* Samin & Sureshan, 2018**

Cleonymus narendrani Samin & Sureshan, 2018:482, Holotype ♀. – Iran.

Distribution in the Middle East: Iran (Gibson et al., 2021).

Zoogeographical distribution: Western Palaearctic.

Genus *Heydenia* Förster, 1856

Heydenia Förster, 1856:46. Type species: *Heydenia pretiosa* Förster, 1856, by monotypy.

***Heydenia pretiosa* Förster, 1856**

Heydenia pretiosa Förster, 1856:49. – Germany.

Distribution in the Middle East: Iran (Davatchi & Shojai, 1968; Lotfalizadeh & Gharali, 2008), Israel (Mendel, 1986), Morocco (Mouna, 2013), Turkey (Western part – Yayla et al., 1995).

Zoogeographical distribution: Western Palaearctic.

Genus *Notanisis* Walker, 1837

Notanisis Walker, 1837:352. Type species: *Notanisis versicolor* Walker, 1837, by monotypy.

***Notanisis clavatus* Bouček, 1961**

Notanisis clavatus Bouček, 1961:471, Holotype ♀. – NMPC, Georgia.

Distribution in the Middle East: Iran (Gibson, 2015; Lotfalizadeh et al., 2019b).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Notanisis oulmesiensis* (Delucchi, 1962)**

Amarisca oulmesiensis Delucchi, 1962:12, Holotype ♀. – ETHZ, Morocco.

Distribution in the Middle East: Iran (Lotfalizadeh et al., 2019b), Morocco (Delucchi, 1962b; Gibson, 2015), Turkey (Eastern part – Gibson, 2015).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Notanisis vanharteni* Gibson, 2015**

Notanisis vanharteni Gibson, 2015:443, Holotype ♀. – CNC, UAE.

Distribution in the Middle East: Iran (Lotfalizadeh et al., 2017; Lotfalizadeh et al., 2019b), UAE (Gibson, 2015).

Zoogeographical distribution: Afrotropical, Western Palaearctic (Lotfalizadeh et al., 2017; Lotfalizadeh et al., 2019b).

***Notanisis versicolor* Walker, 1837**

Notanisis versicolor Walker, 1837:352, Lectotype ♀. – NHMUK, France.

Distribution in the Middle East: Algeria (Bouček, 1961), Iran (Lotfalizadeh et al., 2019b), Morocco (Kissayi et al., 2019).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

***Notanisis yemenensis* Gibson, 2015**

Notanisis yemenensis Gibson, 2015:446, ♀♂, Holotype ♀. – CNC, Yemen.

Distribution in the Middle East: Yemen (Gibson, 2015).

Zoogeographical distribution: Afrotropical.

Genus *Oodera* Westwood, 1874

Oodera Westwood, 1874:145. Type species: *Oodera gracilis* Westwood, 1874. Designation by Ashmead (1904).

***Oodera arabica* Gadallah & Soliman, 2019**

Oodera arabica Gadallah & Soliman (*in* Soliman et al.), 2019:52, Holotype ♀. – KSMA, Saudi Arabia.

Distribution in the Middle East: Saudi Arabia (Soliman et al., 2019).

Zoogeographical distribution: Afrotropical (Soliman et al., 2019).

***Oodera circularicollis* Werner & Peters, 2018**

Oodera circularicollis Werner & Peters, 2018:80, 83, Holotype ♀. – NMBE, Morocco.

Distribution in the Middle East: Morocco (Werner & Peters, 2018).

Zoogeographical distribution: Western Palaearctic.

***Oodera formosa* (Giraud, 1863)**

Heydenia formosa Giraud, 1863:21, ♀. – Italy.

Distribution in the Middle East: Iran (Nazemi Rafie et al., 2011; Alipanah et al., 2013; Jozeyan et al., 2017), Turkey (Eastern part – Werner & Peters, 2018).

Zoogeographical distribution: Nearctic, Western Palaearctic.

Remarks: This species has been recorded from Iran as *Oodera monstrum* Nikol'skaya, 1952 (Nazemi Rafie et al., 2011; Alipanah et al., 2013).

***Oodera hoggarensis* Hedqvist, 1967**

Oodera hoggarensis Hedqvist, 1967:186, Holotype ♀. – MHNG, Algeria.

Distribution in the Middle East: Algeria (Hedqvist, 1967; Werner & Peters, 2018).

Zoogeographical distribution: Western Palaearctic.

***Oodera niehuisorum* Werner & Peters, 2018**

Oodera niehuisorum Werner & Peters, 2018:109–110, ♀♂, Holotype ♀. – ZFMK, Egypt.

Distribution in the Middle East: Egypt, Israel (Werner & Peters, 2018).

Zoogeographical distribution: Western Palaearctic.

***Oodera omanensis* Soliman & Gadallah, 2019**

Oodera omanensis Soliman & Gadallah (*in* Soliman et al.), 2019:57, Holotype ♀. – KSMA, Oman.

Distribution in the Middle East: Oman (Soliman et al., 2019).

Zoogeographical distribution: Afrotropical (Soliman et al., 2019).

***Oodera rapuzzii* Soliman & Gadallah, 2019**

Oodera rapuzzii Soliman & Gadallah (*in* Soliman et al.), 2019:63, ♀♂, Holotype ♀. – KSMA, Saudi Arabia.

Distribution in the Middle East: Oman, Saudi Arabia (Soliman et al., 2019).

Zoogeographical distribution: Afrotropical (Soliman et al., 2019).

***Oodera similis* Gadallah & Soliman, 2019**

Oodera similis Gadallah & Soliman (in Soliman et al.), 2019:65, ♀♂, Holotype ♀. – KSMA, Saudi Arabia.

Distribution in the Middle East: Oman, Saudi Arabia (Soliman et al., 2019).

Zoogeographical distribution: Afrotropical (Soliman et al., 2019).

Genus *Solenura* Westwood, 1868

Solenura Westwood, 1868: 36. Type species: *Solenura telescopica* Westwood, 1886, by monotypy.

***Solenura nigra* (Walker, 1872)**

Epistenia nigra Walker, 1872:87, Holotype ♀. – NHMUK, South Africa.

Distribution in the Middle East: Israel, Yemen (Gibson, 2003).

Zoogeographical distribution: Afrotropical, Western Palaearctic.

Genus *Zolotarewskya* Risbec, 1955

Zolotarewskya Risbec, 1955:180. Type species: *Zolotarewskya seyrigi* Risbec, 1955, by monotypy.

***Zolotarewskya spinifera* (Hedqvist, 1967)**

Pseudocleonimus spinifer Hedqvist, 1967:184, Holotype ♀. – MHNG, Algeria.

Distribution in the Middle East: Algeria (Hedqvist, 1967; Bouček, 1976).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Algeria as *Systolomorphella spinifera* (Hedqvist, 1967) (Bouček, 1976).

Subfamily Colotrechninae Thomson, 1876

Genus *Colotrechnus* Thomson, 1878

Colotrechnus Thomson, 1878:46. Type species, *Colotrechnus subcoeruleus* Thomson, 1878, by monotypy.

***Colotrechnus akifkansui* Doğanlar, 2018**

Colotrechnus akifkansui Doğanlar, 2018:234, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2018b).

Zoogeographical distribution: Western Palaearctic.

***Colotrechnus bekiralkani* Doğanlar, 2018**

Colotrechnus bekiralkani Doğanlar, 2018:221, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2018b).

Zoogeographical distribution: Western Palaearctic.

***Colotrechnus birecikensis* Doğanlar, 2018**

Colotrechnus birecikensis Doğanlar, 2018:231, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2018b).

Zoogeographical distribution: Western Palaearctic.

***Colotrechnus hasangirayi* Doğanlar, 2018**

Colotrechnus hasangirayi Doğanlar, 2018:230, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2018b).

Zoogeographical distribution: Western Palaearctic.

***Colotrechnus karatasensis* Doğanlar, 2018**

Colotrechnus karatasensis Doğanlar, 2018:220, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2018b).

Zoogeographical distribution: Western Palaearctic.

***Colotrechnus kemaliyenensis* Doğanlar, 2018**

Colotrechnus kemaliyenensis Doğanlar, 2018:225, Holotype ♂. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2018b).

Zoogeographical distribution: Western Palaearctic.

***Colotrechnus mustafaoezeri* Doğanlar, 2018**

Colotrechnus mustafaoezeri Doğanlar, 2018:226, Holotype ♂. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2018b).

Zoogeographical distribution: Western Palaearctic.

***Colotrechnus subcoeruleus* Thomson, 1878**

Colotrechnus subcoeruleus Thomson, 1878:46, Lectotype ♂. – Sweden.

Distribution in the Middle East: Iran (Rahmani et al., 2019a), Turkey (Eastern part – Doğanlar, 1985; Central part – Doğanlar, 2018b).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

***Colotrechnus viridis* (Masi, 1921)**

Zanonia viridis Masi, 1921:187, Holotype ♀. – Libya.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; Rahmani et al., 2019a), Libya (Masi, 1921), Turkey (Eastern part – Doğanlar, 1985, 2018b; Central and Western part – Doğanlar, 2018b).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Colotrechnus zduzguenesae* Doğanlar, 2018**

Colotrechnus zduzguenesae Doğanlar, 2018:228, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2018b).

Zoogeographical distribution: Western Palaearctic.

Subfamily Diparinae Thomson, 1876**Genus *Dipara* Walker, 1833**

Dipara Walker, 1833:371, 373. Type species: *Dipara petiolata* Walker, 1833, by monotypy.

***Dipara claviger* (Kieffer, 1906)**

Trimicrops claviger Kieffer, 1906:142, ♀. – Italy.

Distribution in the Middle East: Turkey (Bouček, 1977).

Zoogeographical distribution: Western Palaearctic.

***Dipara* sp.**

Distribution in the Middle East: Iran (Lotfalizadeh et al., 2019a).

Subfamily Epichrysomallinae Hill & Riek, 1967**Genus *Acophila* Ishii, 1934**

Acophila Ishii, 1934:97. Type species: *Acophila mikii* Ishii, 1934, by monotypy.

***Acophila microcarpa* Chen, 1999**

Acophila microcarpa Chen (in Chen et al.), 1999:62, Holotype ♀. – TARI, Taiwan.

Distribution in the Middle East: UAE (van Noort & Rasplus, 2010).

Zoogeographical distribution: Afrotropical (van Noort & Rasplus, 2010), Oriental.

Genus *Camarothorax* Mayr, 1906

Camarothorax Mayr, 1906:182. Type species: *Camarothorax obscurus* Mayr, 1906, by monotypy.

***Camarothorax mutabilis* Vincent & Compton, 1992**

Camarothorax mutabilis Vincent & Compton, 1992:363–368, ♂♀, Holotype ♀. – SAMC, South Africa.

Distribution in the Middle East: Yemen (van Noort & van Harten, 2006).

Zoogeographical distribution: Afrotropical.

Genus *Odontofroggatia* Ishii, 1934

Odontofroggatia Ishii, 1934:95. Type species: *Odontofroggatia gajimaru* Ishii, 1934, original designation and monotypy.

***Odontofroggatia galili* Wiebes, 1980**

Odontofroggatia galili Wiebes, 1980:3–5, ♀♂, Holotype ♀. – RNMH, Israel.

Distribution in the Middle East: Israel (Wiebes, 1980; Galil & Copland, 1981), Tunisia (Kobbi et al., 1996), UAE (van Noort et al., 2013).

Zoogeographical distribution: Afrotropical (van Noort et al., 2013), Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

***Odontofroggatia ishii* Wiebes, 1980**

Odontofroggatia ishii Wiebes, 1980:56, ♀♂, Holotype ♀. – RNMH, Malaysia Peninsular.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2012).

Zoogeographical distribution: Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Subfamily Eunotinae Ashmead, 1904

Genus *Eunotus* Walker, 1834

Eunotus Walker, 1834:297. Type species: *Eunotus cretaceus* Walker, 1834, by monotypy.

Eunotus acutus Kurdjumov, 1912

Eunotus acutus Kurdjumov, 1912:330, ♀♂, Holotype ♀. – Ukraine.

Distribution in the Middle East: Turkey (Central part – Kaydan et al., 2006).

Zoogeographical distribution: Eastern and Western Palaearctic.

Eunotus areolatus (Ratzeburg, 1852)

Tridymus (Tritypus) areolatus Ratzeburg, 1852:227, ♀. – Germany.

Distribution in the Middle East: Turkey (Central part – Ülgentürk & Toros, 1999).

Zoogeographical distribution: Eastern and Western Palaearctic.

Eunotus nigriclavis (Förster, 1856)

Megapelte nigriclavis Förster, 1856:66, Holotype ♀. – Germany.

Distribution in the Middle East: Iran (Haeselbarth, 1983).

Zoogeographical distribution: Western Palaearctic.

Genus *Mesopeltita* Ghesquière, 1946

Mesopeltita Ghesquière, 1946:370, Replacement name for *Mesopeltis* Masi, 1917.

Mesopeltita truncatipennis (Waterston, 1917)

Eunotus truncatipennis Waterston, 1917:252. – NHMUK, Ghana.

Distribution in the Middle East: Egypt (Abd-Rabou & Evans, 2017).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Nearctic, Neotropical, Oriental, Western Palaearctic (Abd-Rabou & Evans, 2017).

Genus *Moranila* Cameron, 1883

Moranila Cameron, 1883:188. Type species: *Moranila testaceipes* Cameron, 1883, by monotypy.

Moranila californica (Howard, 1881)

Tomocera californica Howard, 1881:368, ♀♂. – USA.

Distribution in the Middle East: Iran (Davoodi et al., 2004; Ebrahimi, 2014; Jalilvand et al., 2013), Israel (Mendel et al., 1984), Morocco (Smirnov, 1956).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Genus *Scutellista* Motschulsky, 1859

Scutellista Motschulsky, 1859:172. Type species: *Scutellista cyanea* Motschulsky, 1859, by monotypy.

***Scutellista caerulea* (Fonscolombe, 1832)**

Encyrtus caeruleus Fonscolombe, 1832:304, ♀. – HDOU, France.

Distribution in the Middle East: Algeria (Thompson, 1958), Egypt (Saad et al., 1977; El-Minshawy et al., 1978; Abd-Rabou, 2011), Iran (Hesami et al., 2008), Iraq (Alrubeai, 2017), Israel (Rosen, 1962; Rosen et al., 1971; Mendel et al., 1984), Jordan (Awamelah et al., 2008, 2009), Lebanon (Khazawinah & Talhouk, 1964), Libya (Lal & Naji, 1979b), Morocco (Thompson, 1958; Vago, 2002), Oman (Xiao & Huang, 2001), Palestine (Rivnay, 1944), Syria (Diab et al., 2014), Saudi Arabia (Faragalla et al., 1985), Tunisia (Jarraya, 1974; Mansour et al., 2011), Turkey (Western part – Öncüer, 1991; Yayla et al., 1995; Xiao & Huang, 2001; Kumral & Kovanci, 2004).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded as *Scutellista syanea* from Iraq (Alrubeai, 2017), and as *Scutellista cyanea* Motschulsky, 1859, from Egypt (Saad et al., 1977; El-Minshawy et al., 1978), Israel (Rosen, 1962; Rosen et al., 1971; Mendel et al., 1984), Lebanon (Khazawinah & Talhouk, 1964), Libya (Lal & Naji, 1979b), Palestine (Rivnay, 1944), Saudi Arabia (Faragalla et al., 1985), Tunisia (Mansour et al., 2011) and from Turkey (Öncüer, 1991; Yayla et al., 1995; Kumral & Kovanci, 2004).

***Scutellista nigra* Mercet, 1910**

Scutellista cyanea nigra Mercet, 1910:191, Lectotype ♀. – lost, Spain.

Distribution in the Middle East: Algeria (Graham, 1969), Egypt (Priesner & Hosny, 1940; Herting, 1972), Morocco (El Hormiti & Laraichi, 1979), Syria (Diab et al., 2014).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Egypt as *Enargopelte nigra* (Mercet, 1910) (Priesner & Hosny, 1940).

***Scutellista obscura* (Förster, 1878)**

Enargopelte obscura Förster, 1878:63, ♀♂. – France.

Distribution in the Middle East: Morocco (Jourdan & Rungs, 1934).

Zoogeographical distribution: Eastern and Western Palaearctic.

Subfamily Macromesinae Graham, 1959**Genus *Macromesus* Walker, 1848**

Macromesus Walker, 1848:161. Type species: *Macromesus amphiretus* Walker, 1848, by monotypy.

***Macromesus africanus* Ghesquière, 1963**

Macromesus africanus Ghesquière, 1963:86. – Morocco.

Distribution in the Middle East: Morocco (Ghesquière, 1963).

Zoogeographical distribution: Western Palaearctic.

***Macromesus amphiretus* Walker, 1848**

Macromesus amphiretus Walker, 1848:106, 162, Lectotype ♀. – NHMUK, United Kingdom–England.

Distribution in the Middle East: Turkey (Eastern part – Ünal, 2010).

Zoogeographical distribution: Western Palaearctic.

Subfamily Miscogastrinae Walker, 1833

Genus *Ammeia* Delucchi, 1962

Ammeia Delucchi, 1962:9. Type species: *Ammeia pulchella* Delucchi, 1962, by monotypy.

Ammeia pulchella Delucchi, 1962

Ammeia pulchella Delucchi, 1962:10, Holotype ♀. – ETHZ, Morocco.

Distribution in the Middle East: Morocco (Delucchi, 1962b; Kissayi et al., 2019).

Zoogeographical distribution: Australasian, Eastern Palaearctic, Oriental, Western Palaearctic.

Genus *Blascoa* Askew, 1997

Blascoa Askew, 1997:966–968. Type species: *Blascoa ephedrae* Askew, 1997, original designation and monotypy.

Diagnosis: Anterior clypeal margin with a small median tooth. Antennae inserted below middle of face; formula 11263, flagellum in female compact, stouter than pedicel, only slightly clavate, in male longer and scape broader with a boss in apical half of anterior border. Notauli complete. Scutellum with distinct frenal line. Frenum reticulate. Propodeum weakly sculptured, median carina complete, plicae absent; nucha short and smooth. Hind tibia with two spurs. Fore wing with speculum moderate; marginal vein distinctly shorter than postmarginal vein, stigma slightly enlarged (Askew & Blasco-Zumeta, 1997).

Blascoa ephedrae Askew, 1997

Blascoa ephedrae Askew, 1997:968–970, ♀♂, Holotype ♀. – NHMUK, Spain.

Material examined. Iran, East-Azerbaijan province, Tabriz (38°05'33"N, 46°16'27"E), swept on *Ephedra major*, June 2016, 1♀, 2♂♂, O. Hadi, leg.

Distribution in the Middle East: Iran (new record).

Zoogeographical distribution: Western Palaearctic.

Remarks: The record of *Ksenoplata quadrata* Bouček, 1965 from Iran (Hadi et al., 2017) hereby referred as *B. ephedrae* through re-examination of the voucher specimens.

Diagnosis. Female. Body length 2.8 mm. Head in frontal view 1.66 times wider than high (Fig. 1A). Toruli inserted above lower margins of eyes (Fig. 1A). Scape not reaching median ocellus (Fig. 1A). Width of head 2.43 times its length in dorsal view (Fig. 1B). POL 1.37 times longer than OOL (Fig. 1B). Eye height 1.33 times longer than its length in lateral view. Mesoscutum 1.85 times wider than its length (Fig. 1C). Propodeum shining with weakly raised reticulate sculpture (Fig. 1D). Fore wing with basal fold a few hairs; basal cell with some hairs in distal half; marginal vein 0.8 times postmarginal vein and 1.33 times longer than stigmal vein (Fig. 1E). Body metallic green with bronze-copper reflections, antenna (except scape yellow) dark brown, legs with coxae concolorous with mesosoma, femora (except bases black), tibiae, and tarsi brownish yellow, wings hyaline (Fig. 1F).

Male. Body length 2.25 mm. Similar to female but antenna with scape broader than in female, metallic, expanded in distal half with a smooth, shining boss on its outer face; funicular segments elongated and pilose than in female with only six funicle quadrate.

Genus *Halticoptera* Spinola, 1811

Halticoptera Spinola, 1811:148. Type species: *Diplolepis flavicornis* Spinola, 1808. Designation by Ashmead (1904).

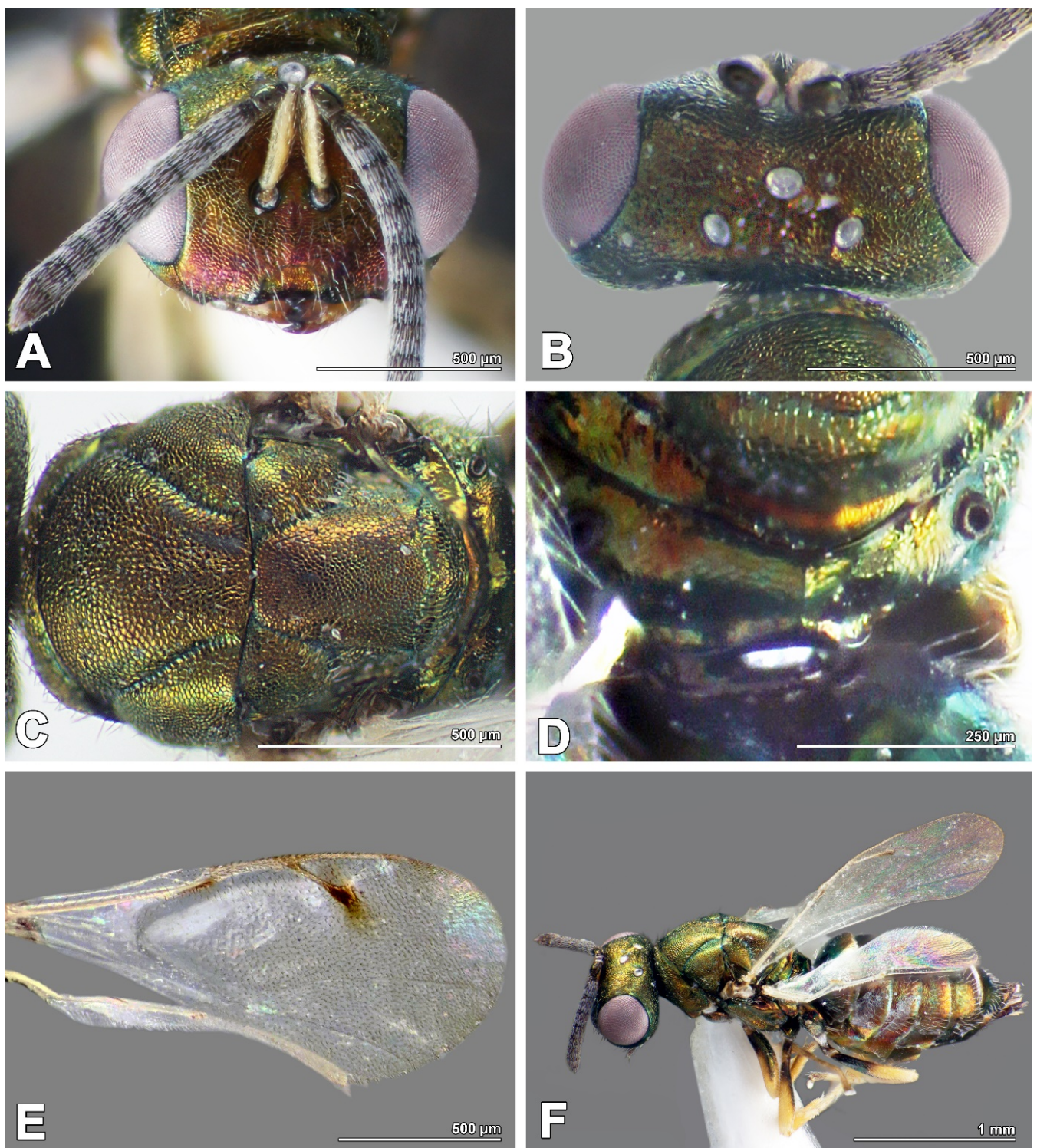


Figure 1. *Blascoa ephedrae* Askew, 1997, Female. **A.** Head in frontal view; **B.** Head in dorsal view; **C.** Mesonotum in dorsal view, **D.** Propodeum in dorsal view; **E.** Fore wing venation; **F.** General habitus in lateral view.

***Halticoptera adanacus* Doğanlar, 2006**

Halticoptera adanacus Doğanlar, 2006:178, Holotype ♂. – ZSM, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2006).

Zoogeographical distribution: Western Palearctic.

***Halticoptera aenea* (Walker, 1833)**

Dicyclus aeneus Walker, 1833:456, Lectotype. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (OILB, 1971; Modarres Awal, 2012; Dehdar & Madjdzadeh, 2013), Turkey (Eastern part – Doğanlar, 2006).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Western Palaearctic.

***Halticoptera andriescui* Mitroiu, 2005**

Halticoptera andriescui Mitroiu, 2005:43, ♀♂, Holotype ♀. – MGAB, Romania.

Distribution in the Middle East: Iran (Ranji et al., 2016; Shojaey et al., 2020).

Zoogeographical distribution: Eastern (Shojaey et al., 2020) and Western Palaearctic.

***Halticoptera circulus* (Walker, 1833)**

Dicyclus circulus Walker, 1833:456, Lectotype. – NHMUK, United Kingdom.

Distribution in the Middle East: Egypt (El-Serwy, 2003; Gadallah et al., 2014; Neama & Hegazi, 2014), Iran (Lotfalizadeh & Gharali, 2008; Mitroiu et al., 2011; Moravvej et al., 2018), Iraq (Mekhlif & Abdul-Rassoul, 2002; Abdul-Rassoul & Al-Saffar, 2014), Jordan (Al-Ghabeish & Allawi, 2001), Turkey (Eastern part – Doğanlar, 1985, 2006; Çikman, 2012; Central & Western part – Doğanlar, 2006).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Iran as *Halticoptera circula* (Walker, 1833) (Lotfalizadeh & Gharali, 2008).

***Halticoptera collaris* (Walker, 1836)**

Pteromalus collaris Walker, 1836:472, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Moravvej et al., 2018).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Halticoptera crius* (Walker, 1839)**

Miscogaster crius Walker, 1839:201, Lectotype. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985, 2006).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Halticoptera dimidiata* (Förster, 1841)**

Phacostomus dimidiata Förster, 1841:35. – Germany.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Halticoptera brevicornis* Thomson, 1876 (Doğanlar, 1985).

***Halticoptera flavicornis* (Spinola, 1808)**

Diplolepis flavicornis Spinola, 1808:219–220.

Distribution in the Middle East: Iran (Modarres Awal, 2012).

Zoogeographical distribution: Western Palaearctic.

***Halticoptera kemaliyensis* Doğanlar, 2006**

Halticoptera kemaliyensis Doğanlar, 2006:181, Holotype ♂. – ZSM, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2006).

Zoogeographical distribution: Western Palaearctic.

***Halticoptera laevigata* Thomson, 1876**

Halticoptera laevigata Thomson, 1876:253, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Gibson et al., 2021), Turkey (Western part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Halticoptera longipetiolus* Hedqvist, 1975**

Halticoptera longipetiolus Hedqvist, 1975:167. – Sweden.

Distribution in the Middle East: Iran (Nazemi Rafie et al., 2011), Turkey (Western part – Doğanlar, 2006).

Zoogeographical distribution: Western Palaearctic.

***Halticoptera moczari* (Erdős, 1954)**

Halticopterina moczari Erdős, 1954:153, Holotype ♀. – HNHM, Hungary.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Halticopterina penthocoryne* Dzhankmen, 1975 (Doğanlar, 1985).

***Halticoptera patellana* (Dalman, 1818)**

Diplolepis patellana Dalman, 1818:80, ♂. – NHRS, Sweden.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; Moravvej et al., 2018), Turkey (Eastern part – Doğanlar, 1985, 2006; Çikman, 2012).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Iran as *Halticoptera* near *patellana* (Lotfalizadeh & Gharali, 2008).

***Halticoptera polita* (Walker, 1834)**

Eutelus politus Walker, 1834:369, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Sadeghi & Lotfalizadeh, 2013; Moravvej et al., 2018), Turkey (Eastern part – Doğanlar, 2006).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Halticoptera poreia* (Walker, 1848)**

Tityros poreia Walker, 1848:165, ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2006).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Halticoptera sakipagai* Doğanlar, 2006**

Halticoptera sakipagai Doğanlar, 2006:176, ♀♂, Holotype, ♀. – ZSM, Turkey.

Distribution in the Middle East: Turkey (Eastern and Western part – Doğanlar, 2006).

Zoogeographical distribution: Western Palaearctic.

***Halticoptera triannulata* (Erdős, 1946)**

Halticopterina triannulata Erdős, 1946:161, ♀♂. – HNHM, Hungary.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Halticopterina triannulata* Erdős, 1946 (Doğanlar, 1985).

***Halticoptera violacea* Askew, 1972**

Halticoptera violacea Askew, 1972:49, ♀♂. – HDOU, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Halticoptera yoncacus* Doğanlar, 2006**

Halticoptera yoncacus Doğanlar, 2006:175, Holotype ♀. – ZSM, Turkey.

Distribution in the Middle East: Iran (Hasani et al., 2011), Turkey (Eastern part – Doğanlar, 2006).

Zoogeographical distribution: Eastern (Hasani et al., 2011) and Western Palaearctic.

Remarks: This species has been recorded from Iran as *Halticoptera* cf. *yoncacus* (Hasani et al., 2011).

***Halticoptera* sp.**

Distribution in the Middle East: Morocco (Jourdan & Rungs, 1934).

Genus *Harrizia* Delucchi, 1962

Harrizia Delucchi, 1962:116. Type species: *Harrizia mira* Delucchi, 1962, original designation and monotypy.

***Harrizia mira* Delucchi, 1962**

Harrizia mira Delucchi, 1962:116, Holotype ♀. – ETHZ, Morocco.

Distribution in the Middle East: Iran (Rahmani et al., 2020b), Morocco (Delucchi, 1962a; Vago, 2002).

Zoogeographical distribution: Eastern (Rahmani et al., 2020b) and Western Palaearctic.

Genus *Ksenoplata* Bouček, 1965

Ksenoplata Bouček, 1965:373. Type species: *Ksenoplata quadrata* Bouček, 1965, original designation.

***Ksenoplata medicaginis* Bouček, 1965**

Ksenoplata medicaginis Bouček, 1965:376, ♀. – Algeria.

Distribution in the Middle East: Algeria (Bouček, 1965).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Ksenoplata quadrata* Bouček, 1965**

Ksenoplata quadrata Bouček, 1965:374, ♀♂. – [former]Czechoslovakia.

Distribution in the Middle East: Algeria (Bouček, 1965), Iran (Lotfalizadeh et al., 2019a; Shojaey et al., 2020), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

Genus *Lamprotatus* Westwood, 1833

Lamprotatus Westwood, 1833:121. Type species: *Lamprotatus splendens* Westwood, 1833, by monotypy.

***Lamprotatus truncatus* (Fonscolombe, 1832)**

Cynips truncata Fonscolombe, 1832:287, ♀. – France.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Skeloceras mirabile* Delucchi, 1955 (Doğanlar, 1985).

Genus *Miscogaster* Walker, 1833

Miscogaster Walker, 1833:371. Type species: *Miscogaster hortensis* Walker, 1833. Designation by Ashmead, 1904.

***Miscogaster elegans* Walker, 1833**

Miscogaster elegans Walker, 1833:459, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008), Morocco (Delucchi, 1962a), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

***Miscogaster hortensis* Walker, 1833**

Miscogaster hortensis Walker, 1833:460, ♀♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oriental, Western Palaearctic.

***Miscogaster maculata* Walker, 1833**

Miscogaster maculata Walker, 1833:459, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Morocco (Kissayi et al., 2019).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Miscogaster rufipes* Walker, 1833**

Miscogaster rufipes Walker, 1833:459, ♀♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Rhcnocoelia* Graham, 1956

Rhcnocoelia Graham, 1956:262. Type species: *Pteromalus constans* Walker, 1836, original designation.

Rhcnocoelia impar (Walker, 1836)

Pteromalus impar Walker, 1836:469, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Shojaey et al., 2020), Morocco (Delucchi, 1962b; Vago, 2002).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Doghmiella viridis* Delucchi, 1962 (Delucchi, 1962b; Vago, 2002).

Genus *Thinodytes* Graham, 1956

Thinodytes Graham, 1956:262. Type species: *Miscogaster cyzicus* Walker, 1839, original designation.

Thinodytes cyzicus (Walker, 1839)

Miscogaster cyzicus Walker, 1839:200, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iraq (Al Azawi, 1971), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Thinodytes cyzinus* (Walker) (Doğanlar, 1985).

Subfamily Ormocerinae Walker, 1833

Genus *Ormocerus* Walker, 1834

Ormocerus Walker, 1834:168. Type species: *Ormocerus vernalis* Walker, 1834, by subsequent designation.

Ormocerus latus Walker, 1834

Ormocerus latus Walker, 1834:168, Lectotype ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Tunisia (Pujade-Villar et al., 2010; Askew et al., 2013).

Zoogeographical distribution: Nearctic, Western Palaearctic.

Genus *Oxyglypta* Förster, 1856

Oxyglypta Förster, 1856:64. Type species: *Oxyglypta rugosa* Ruschka, 1912, by subsequent monotypy.

Oxyglypta rugosa Ruschka, 1912

Oxyglypta rugosa Ruschka, 1912:240–242, ♀♂. – Austria.

Distribution in the Middle East: Israel (OILB, 1971), Turkey (Eastern and Western part – Öncüer, 1991; Southern part – Doğanlar & Yiğit, 2005).

Zoogeographical distribution: Western Palaearctic.

Genus *Systasis* Walker, 1834

Systasis Walker, 1834:288, 296. Type species: *Systasis encyrtoides* Walker, 1834. Designation by Westwood, 1839.

Systasis angustula Graham, 1969

Systasis (*Systasis*) *angustula* Graham, 1969:262–263, ♀♂. – HDOU, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Systasis annulipes* (Walker, 1834)**

Gastrancistrus annulipes Walker, 1834:176, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Iran as *Systasis* near *annulipes* (Lotfalizadeh & Gharali, 2008).

***Systasis encyrtoides* Walker, 1834**

Systasis encyrtoides Walker, 1834:296, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Mitroiu et al., 2011; Hasani & Madjdzadeh, 2012; Dehdar & Madjdzadeh, 2013), Israel (Rubin, 1965), Morocco (Delucchi, 1962a; Vago, 2002), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oriental, Western Palaearctic.

***Systasis ephedrae* Dzhankmen, 1982**

Systasis ephedrae Dzhankmen, 1982:96, ♀. – ZISP, Kazakhstan.

Distribution in the Middle East: Iran (Abolhassanzadeh et al., 2017).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Systasis longula* Bouček, 1956**

Systasis longula Bouček, 1956:326, ♀. – NMPC, Czech Republic.

Distribution in the Middle East: Iran (Dehdar & Madjdzadeh, 2016).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

***Systasis parvula* Thomson, 1876**

Systasis parvula Thomson, 1876:205, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Hasani & Madjdzadeh, 2012; Shojaey et al., 2020), Israel (Tselikh, 2020).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oriental, Western Palaearctic.

***Systasis tenuicornis* Walker, 1834**

Systasis tenuicornis Walker, 1834:297, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Dehdar & Madjdzadeh, 2016).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Trichilogaster* Mayr, 1905

Trichilogaster Mayr, 1905:555. Type species: *Cynips maideni* Froggatt, 1892. Designation by Gahan & Fagan, 1923.

***Trichilogaster arabica* Ferrière, 1947**

Trichilogaster arabicus Ferrière (in Gahan & Ferrière), 1947:295, Holotype ♀. – NHMUK, Saudi Arabia.

Distribution in the Middle East: Saudi Arabia (Gahan & Ferrière, 1947).

Zoogeographical distribution: Afrotropical.

Subfamily Otitesellinae Joseph, 1964

Genus *Otitesella* Westwood, 1883

Otitesella Westwood, 1883:39–40. Type species: *Otitesella digitata* Westwood, 1883. Designation by Ashmead, 1904.

Otitesella longicauda van Noort, 1997

Otitesella longicauda van Noort (*in* van Noort & Rasplus), 1997:130, Holotype ♂. – SAMC, South Africa.

Distribution in the Middle East: Saudi Arabia (van Noort & Rasplus, 1997), Yemen (van Noort & van Harten, 2006).

Zoogeographical distribution: Afrotropical.

Otitesella pseudoserrata van Noort, 1997

Otitesella pseudoserrata van Noort (*in* van Noort & Rasplus), 1997:138, ♀♂, Holotype ♂. – SAMC, South Africa.

Distribution in the Middle East: UAE, Yemen (van Noort & Rasplus, 2010).

Zoogeographical distribution: Afrotropical.

Otitesella rotunda van Noort, 1997

Otitesella rotunda van Noort (*in* van Noort & Rasplus), 1997:143, ♀♂, Holotype ♂. – SAMC, South Africa.

Distribution in the Middle East: Saudi Arabia (van Noort & Rasplus, 1997), Yemen (van Noort & van Harten, 2006).

Zoogeographical distribution: Afrotropical.

Otitesella serrata Mayr, 1885

Otitesella serrata Mayr, 1885:210. – Yemen.

Distribution in the Middle East: Yemen (Mayr, 1885; Jansta, 2012).

Zoogeographical distribution: Afrotropical.

Otitesella sp. near *digitata* Westwood, 1883

Distribution in the Middle East: Saudi Arabia (Ghramh & Ahmad, 2014).

Genus *Walkerella* Westwood, 1883

Walkerella Westwood, 1883:32. Type species: *Walkerella temeraria* Westwood, 1883, original designation and monotypy.

Walkerella microcarpae Bouček, 1993

Walkerella microcarpae Bouček, 1993:186, ♀♂, Holotype ♂. – NHMUK, USA–Florida.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2012).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Subfamily Pireninae Haliday, 1844**Genus *Gastrancistrus* Westwood, 1833**

Gastrancistrus Westwood, 1833:444. Type species: *Gastrancistrus vagans* Westwood, 1833, by monotypy.

***Gastrancistrus almusensis* Doğanlar, 2021**

Gastrancistrus almusensis Doğanlar, 2021:15, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

***Gastrancistrus belenensis* Doğanlar, 2021**

Gastrancistrus belenensis Doğanlar, 2021:19, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

***Gastrancistrus cerasus* Doğanlar, 2021**

Gastrancistrus cerasus Doğanlar, 2021:12, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

***Gastrancistrus compressus* Walker, 1834**

Gastrancistrus compressus Walker, 1834:172 ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2020b).

Zoogeographical distribution: Western Palaearctic.

***Gastrancistrus doertyolensis* Doğanlar, 2021**

Gastrancistrus doertyolensis Doğanlar, 2021:8, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

***Gastrancistrus ephedrae* Dzhanokmen, 1994**

Gastrancistrus ephedrae Dzhanokmen, 1994:379, ♀♂, Holotype ♀. – ZISP, Kazakhstan.

Distribution in the Middle East: Iran (Mahdavi et al., 2015).

Zoogeographical distribution: Eastern Palaearctic.

***Gastrancistrus flavicornis* (Walker, 1834)**

Meromalus flavicornis Walker, 1834:178, ♂. – United Kingdom.

Distribution in the Middle East: Turkey (Western part – Civelek & LaSalle, 2005).

Zoogeographical distribution: Western Palaearctic.

***Gastrancistrus geyrazensis* Doğanlar, 2021**

Gastrancistrus geyrazensis Doğanlar, 2021:7, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

Gastrancistrus glabellus (Nees, 1834)

Eulophus glabellus Nees, 1834:187, ♀. – HDOU, Germany.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985; Western part – Doğanlar, 2020b).

Zoogeographical distribution: Eastern and Western Palaearctic.

Gastrancistrus goekderenensis Doğanlar, 2021

Gastrancistrus goekderenensis Doğanlar, 2021:16, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

Gastrancistrus hilvanensis Doğanlar, 2021

Gastrancistrus hilvanensis Doğanlar, 2021:20, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

Gastrancistrus hirtulus Graham, 1969

Gastrancistrus hirtulus Graham, 1969:309, Holotype ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

Gastrancistrus konacikensis Doğanlar, 2021

Gastrancistrus konacikensis Doğanlar, 2021:14, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

Gastrancistrus latifrons (Thomson, 1876)

Tridymus latifrons Thomson, 1876:201, ♀. – MZLU, Sweden.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985, Doğanlar, 2020b).

Zoogeographical distribution: Western Palaearctic.

Gastrancistrus notaulius Narendran & van Harten, 2007

Gastrancistrus notaulius Narendran & van Harten, 2007:116–118, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2007b).

Zoogeographical distribution: Afrotropical.

Gastrancistrus oguzelinensis Doğanlar, 2021

Gastrancistrus oguzelinensis Doğanlar, 2021:21, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

***Gastrancistrus onobrycicus* Doğanlar, 2021**

Gastrancistrus onobrycicus Doğanlar, 2021:10, ♂, Holotype ♂. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

***Gastrancistrus picipes* (Nees, 1834)**

Pteromalus picipes Nees, 1834:96, Neotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Gastrancistrus walkeri* Graham, 1969 (Doğanlar, 2021).

***Gastrancistrus pruniflorumus* Doğanlar & Yiğit, 2019**

Gastrancistrus pruniflorumus Doğanlar & Yiğit, 2019:25, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar & Yiğit, 2019).

Zoogeographical distribution: Western Palaearctic.

***Gastrancistrus puncticollis* (Thomson, 1876)**

Tridymus puncticollis Thomson, 1876:200, ♀♂, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic.

***Gastrancistrus reyhanlinensis* Doğanlar, 2020**

Gastrancistrus reyhanlinensis Doğanlar, 2020:345, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2020b).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2020b).

***Gastrancistrus selimensis* Doğanlar, 2020**

Gastrancistrus selimensis Doğanlar, 2020:341, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2020b).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2020b).

***Gastrancistrus senyurtensis* Doğanlar, 2021**

Gastrancistrus senyurtensis Doğanlar, 2021:11, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

***Gastrancistrus siverekensis* Doğanlar, 2021**

Gastrancistrus siverekensis Doğanlar, 2021:18, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

***Gastrancistrus surucensis* Doğanlar, 2021**

Gastrancistrus surucensis Doğanlar, 2021:23, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2021).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2021).

***Gastrancistrus ulukislanensis* Doğanlar, 2020**

Gastrancistrus ulukislanensis Doğanlar, 2020:344, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2020b).

Zoogeographical distribution: Western Palaearctic (Doğanlar, 2020b).

***Gastrancistrus vagans* Westwood, 1833**

Gastrancistrus vagans Westwood, 1833:444, ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Morocco (Kissayi et al., 2019).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Gastrancistrus* aff. *vagans* Westwood, 1833 (Kissayi et al., 2019).

Genus *Macroglenes* Westwood, 1832

Macroglenes Westwood, 1832:127. Type species: *Macroglenes oculatus* Westwood, 1832, by monotypy.

***Macroglenes chalybeus* (Haliday, 1833)**

Pirene chalybea Haliday, 1833:338. – Ireland.

Distribution in the Middle East: Morocco (Mitroiu, 2010), Turkey (Central, Eastern and Western part – Doğanlar, 2018c).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Macroglenes fidanlinensis* Doğanlar, 2018**

Macroglenes fidanlinensis Doğanlar, 2018:319, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2018c).

Zoogeographical distribution: Western Palaearctic.

***Macroglenes gramineus* (Haliday, 1833)**

Pirene graminea Haliday, 1833:338. – Ireland.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2018c).

Zoogeographical distribution: Western Palaearctic.

***Macroglenes microcerus* Haliday, 1844**

Macroglenes microcerus Haliday, 1844:295, ♂. – NMID, Ireland.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2018c).

Zoogeographical distribution: Western Palaearctic.

***Macroglenes varicornis* (Haliday, 1833)**

Pirene varicornis Haliday, 1833:337, ♀♂. – NHMUK, Ireland.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985, 2018c).

Zoogeographical distribution: Eastern and Western Palaearctic.

Subfamily Pteromalinae Dalman, 1820

Genus *Acrocormus* Förster, 1856

Acrocormus Förster, 1856:66. Type species: *Acrocormus semifasciatus* Thomson, 1878, by subsequent monotypy.

Acrocormus semifasciatus Thomson, 1878

Acrocormus semifasciatus Thomson, 1878:34, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Gibson et al., 2021).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Anisopteromalus* Ruschka, 1912

Anisopteromalus Ruschka, 1912: 243. Type species: *Anisopteromalus mollis* Ruschka, 1912, by monotypy.

Anisopteromalus calandrae (Howard, 1881)

Pteromalus calandrae Howard, 1881:273, ♂.

Material examined. 1♀, Iran, South Khorasan province, Birjand, Mohammadiyah (32°25'55"N, 58°48'57"E), Malaise trap, 17.07.2018, B. Motamedinia, leg.

Distribution in the Middle East: Algeria; Egypt (Awadallah et al., 1985), Iran (Davatchi & Shojai, 1968; Kazemi et al., 2004; Akbari Asl et al., 2009; Modarres Awal., 2012; Shojaey et al., 2021; current study), Iraq (Abdul-Rassoul, 1990; Al-Obaidy et al., 2019), Israel (Gothilf, 1969), Libya (Lal & Naji, 1979b), Morocco (Vago, 2002), Saudi Arabia (Ahmed, 1996), Syria (Baur, 2005; Bilaf et al., 2011), Turkey (Western part – Öncüer, 1991).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic (USA), Neotropical, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded as *Anisopteromalus mollis* Ruschka, 1912 from Iran (Davatchi & Shojai, 1968; Modarres Awal., 2012) and Israel (Gothilf, 1969). Record from Syria has been considered as questioned species (Baur, 2005).

Anisopteromalus quinarius Gokhman & Baur, 2014

Anisopteromalus quinarius Gokhman & Baur (in Baur et al., 2014), 2014:699, Holotype ♀. – NMBE, Russia.

Distribution in the Middle East: Tunisia (Ben Hamouda et al., 2018).

Zoogeographical distribution: Nearctic; Western Palaearctic.

Genus *Anogmus* Förster, 1856

Anogmus Förster, 1856:59. Type species: *Roptrocerus strobilorum* Thomson, 1878, by subsequent monotypy, Thomson, 1878.

Anogmus laricis Bouček, 1966

Anogmus laricis Bouček, 1966:55, ♀♂. – Italy.

Distribution in the Middle East: Iran (Bahri-Motlagh et al., 2012a).

Zoogeographical distribution: Western Palaearctic.

Genus *Anorbanus* Bouček, 1991

Anorbanus Bouček, 1991:195–206. Type species: *Anorbanus barbieri* Bouček, 1991, original designation and monotypy.

***Anorbanus barbieri* Bouček, 1991**

Anorbanus barbieri Bouček, 1991:196–197, Holotype ♀. – MNHN, Algeria.

Distribution in the Middle East: Algeria (Bouček, 1991).

Zoogeographical distribution: Western Palaearctic.

Genus *Arthrolytus* Thomson, 1878

Arthrolytus Thomson, 1878:158. Type species: *Pteromalus punctatus* Thomson, 1878. Designation by Ashmead, 1904.

***Arthrolytus discoideus* (Nees, 1834)**

Pteromalus discoideus Nees, 1834:119, ♀. – HDOU, Germany.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985; 2018d).

Zoogeographical distribution: Western Palaearctic.

***Arthrolytus geyrazensis* Doğanlar, 2018**

Arthrolytus geyrazensis Doğanlar, 2018:274, Holotype ♂. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2018d).

Zoogeographical distribution: Western Palaearctic.

***Arthrolytus glandium* Bouček, 1967**

Arthrolytus glandium Bouček, 1967:637, ♀♂. – [former]Czechoslovakia.

Distribution in the Middle East: Iran (Bahri-Motlagh et al., 2012b).

Zoogeographical distribution: Western Palaearctic.

***Arthrolytus gurderei* Doğanlar, 2018**

Arthrolytus gurderei Doğanlar, 2018:279, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2018d).

Zoogeographical distribution: Western Palaearctic.

***Arthrolytus kahvecii* Doğanlar, 2018**

Arthrolytus kahvecii Doğanlar, 2018:280, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2018d).

Zoogeographical distribution: Western Palaearctic.

***Arthrolytus magarsosensis* Doğanlar, 2018**

Arthrolytus magarsosensis Doğanlar, 2018:271, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2018d).

Zoogeographical distribution: Western Palaearctic.

***Arthrolytus nenehatunae* Doğanlar, 2018**

Arthrolytus nenehatunae Doğanlar, 2018:284, Holotype ♂. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2018d).

Zoogeographical distribution: Western Palaearctic.

***Arthrolytus nuridemiragi* Doğanlar, 2018**

Arthrolytus nuridemiragi Doğanlar, 2018:285, Holotype ♂. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2018d).

Zoogeographical distribution: Western Palaearctic.

***Arthrolytus ocellus* (Walker, 1834)**

Eutelus ocellus Walker, 1834:359, ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008).

Zoogeographical distribution: Western Palaearctic.

***Arthrolytus yazicioglui* Doğanlar, 2018**

Arthrolytus yazicioglui Doğanlar, 2018:277, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2018d).

Zoogeographical distribution: Western Palaearctic.

Genus *Caenacis* Förster, 1856

Caenacis Förster, 1856:64. Type species: *Caenacis grandiclava* Thomson, 1878. Designated by Ashmead, 1904.

***Caenacis inflexa* (Ratzeburg, 1848)**

Pteromalus inflexus Ratzeburg, 1848:196, ♀♂. – Germany.

Distribution in the Middle East: Iran (Lotfalizadeh et al., 2006; Lotfalizadeh & Gharali, 2008; Mahdavi et al., 2015).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Iran as *Caenacis* cf. *inflexa* (Mahdavi et al., 2015).

***Caenacis lauta* (Walker, 1835)**

Pteromalus lautus Walker, 1835:186, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Sadeghi et al., 2009).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Caenocrepis* Thomson, 1878

Caenocrepis Thomson, 1878:51 (as subgenus of *Dimachus* Thomson). Type species: *Dimachus arenicola* Thomson, 1878, by monotypy.

***Caenocrepis arenicola* (Thomson, 1878)**

Dimachus arenicola Thomson, 1878:51, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Shojaey et al., 2019, 2021; Rahmani et al., 2021), Morocco (Delucchi, 1962b; Vago, 2002), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Caenocrepis bothynoderi* Gromakov, 1940**

Caenocrepis bothynoderi Gromakov, 1940:11–12, ♀♂. – Ukraine.

Distribution in the Middle East: Iran (Huber & Vayssieres, 1990), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Callitula* Spinola, 1811

Callitula Spinola, 1811:151, Type species: *Callitula bicolor* Spinola, 1811, by monotypy.

***Callitula bicolor* Spinola, 1811**

Callitula bicolor Spinola, 1811:151.

Distribution in the Middle East: Iran (Dehdar & Madjdzadeh, 2013; Shojaey et al., 2021), Morocco (Kissayi et al., 2021).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Callitula domatica* Narendran & van Harten, 2007**

Callitula domatica Narendran & van Harten, 2007:116, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2007b).

Zoogeographical distribution: Afrotropical.

***Callitula ferrierei* Bouček, 1964**

Callitula ferrierei Bouček, 1964:11, Holotype ♀. – NMPC, [former]Czechoslovakia.

Distribution in the Middle East: Iran (Bayegan et al., 2014; Lotfalizadeh et al., 2016).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

Genus *Catolaccus* Thomson, 1878

Catolaccus Thomson, 1878:146, 152. Type species: *Pteromalus cavigena* Thomson, 1878, by monotypy.

***Catolaccus ater* (Ratzeburg, 1852)**

Pteromalus ater Ratzeburg, 1852:233, ♀♂.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008), Turkey (Eastern part – Doğanlar, 1982, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Catolaccus crassiceps* (Masi, 1911)**

Merisoides crassiceps Masi, 1911:141–145.

Distribution in the Middle East: Egypt (Nada, 1994), Iran (Lotfalizadeh & Gharali, 2008; Hasani & Madjdzadeh, 2012; Dehdar & Madjdzadeh, 2013; Shojaey et al., 2021), Morocco (Vago, 2002; Stefanescu et al., 2012).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

Genus *Cecidostiba* Thomson, 1878

Etroxys (*Cecidostiba* Thomson, 1878):92. Type species: *Etroxys rugifrons* Thomson, 1878. Designation by Ashmead, 1904.

Cecidostiba fungosa (Geoffroy, 1785)

Cynips fungosus Geoffroy (*in* Fourcroy), 1785:380.

Distribution in the Middle East: Iran (Nazemi-Rafie et al., 2007; Lotfalizadeh & Gharali, 2008; Golestaneh et al., 2008), Israel (Pujade-Villar et al., 2003), Jordan (Rizzo & Askew, 2008; Askew et al., 2013), Morocco (Delucchi, 1962b), Tunisia (Pujade-Villar et al., 2010), Turkey (Askew et al., 2013; Western part – Doğanlar, 2014).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Cecidostiba leucopeza* (Ratzeburg, 1844) (Delucchi, 1962b) and from Tunisia as *Cecidostiba ?fungosa* (Pujade-Villar et al., 2010).

Cecidostiba ilicina Nieves Aldrey & Askew, 1988

Cecidostiba ilicina Nieves Aldrey & Askew, 1988:1–2, ♂♀, Holotype ♀. – MNCN, Spain.

Distribution in the Middle East: Jordan (Rizzo & Askew, 2008; Askew et al., 2013).

Zoogeographical distribution: Western Palaearctic.

Cecidostiba semifascia (Walker, 1835)

Pteromalus semifascia Walker, 1835:494, Lectotype ♀. – NHMUK, United Kingdom–England.

Distribution in the Middle East: Iran (Sadeghi et al., 2009).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Cheiropachus* Westwood, 1829

Cheiropachus Westwood, 1829:23. Type species: *Ichneumon quadrum* Fabricius, 1787, by original designation.

Cheiropachus quadrum (Fabricius, 1787)

Ichneumon quadrum Fabricius 1787:270, Lectotype ♂. – ZMUC, Germany.

Material examined. 7♀♀, Iran: North Khorasan province, Maneh and Semelghan, Qaleh-Khan (37°30'36"N, 56°46'16"E), Malaise trap, 19.07.2018, 2♀♀, Z. Rahmani leg.; Isfahan province, Najafabad (32°37'59.13"N, 51°21'29.18"E), Malaise trap, 13.09.2013, 2♀♀, E. Nader leg.; South Khorasan province, Pokht (32°35'01"N, 59°37'21"E), Malaise trap, 02.06.2021, 3♀♀, F. Minab leg.

Distribution in the Middle East: Egypt (Ismail et al., 1988), Iran (Lotfalizadeh & Gharali, 2008; Mitroiu et al., 2011; Rahmani et al., 2021; current study), Israel (Mendel, 1986), Lebanon (Herting, 1973), Morocco (Graf, 1977; Mouna, 2013), Tunisia (Jardak et al., 2002; Zeiri et al., 2013), Turkey (Herting, 1973; Western part – Öncüer, 1991; Eastern part – Özgen, 2019).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Oriental, Western Palaearctic.

Genus *Chlorocythus* Graham, 1956

Chlorocythus Graham, 1956:92. Type species: *Pteromalus pulchripes* Walker, 1836, original designation.

Chlorocythus breviscapus Graham, 1965

Chlorocythus breviscapus Graham, 1965:307, Holotype ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Turkey (Central part – Korkmaz et al., 2010).

Zoogeographical distribution: Western Palaearctic.

***Chlorocytus diversus* (Walker, 1836)**

Pteromalus diversus Walker, 1836:483, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Mehrnejad & Basirat, 2009), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Chlorocytus longicauda* (Thomson, 1878)**

Etroxyx (Habrocytus) longicauda Thomson, 1878:122, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Turkey (Eastern part – Gültekin, 2006).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Chlorocytus phalaridis* Graham, 1965**

Chlorocytus phalaridis Graham, 1965:305, Holotype ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Chlorocytus spicatus* (Walker, 1835)**

Pteromalus spicatus Walker, 1835:97, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; Moravvej et al., 2018; Shojaey et al., 2021).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Chlorocytus ultonicus* Graham, 1965**

Chlorocytus ultonicus Graham (in Graham & Claridge), 1965:304, Holotype ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

Genus *Coelopisthia* Förster, 1856

Coelopisthia Förster, 1856:65. Type species: *Pteromalus extentus* Walker, 1835. Designation by Baur & Bouček, 2000.

***Coelopisthia areolata* Askew, 1980**

Coelopisthia areolata Askew, 1980:4–5, Holotype ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Iran (Shojaey et al., 2021).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Coelopisthia caledonica* Askew, 1980**

Coelopisthia caledonica Askew, 1980:3–4, ♀♂, Holotype ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Coelopisthia extenta* (Walker, 1835)**

Pteromalus extentus Walker, 1835:480, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Modarres Awal, 2012), Morocco (Delucchi, 1962a).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Remarks: This species has been recorded from Iran (Modarres Awal, 2012) and Morocco (Delucchi, 1962a) as *Dibrachoides druso* (Walker, 1839).

***Coelopisthia pachycera* Masi, 1924**

Coelopisthia pachycera Masi, 1924:220, Holotype ♀. – Italy.

Distribution in the Middle East: Iran (Akbarzadeh Shoukat et al., 2015).

Zoogeographical distribution: Western Palaearctic.

Genus *Conomorium* Masi, 1924

Conomorium Masi, 1924:215. Type species: *Pteromalus eremita* Förster, 1841, by monotypy.

***Conomorium amplum* (Walker, 1835)**

Pteromalus amplus Walker, 1835:480, Lectotype – NHMUK, United Kingdom.

Distribution in the Middle East: Egypt (Ahmed & Kira, 1960), Iran (Nazemi Rafie et al., 2011; Alipanah et al., 2013; Lotfalizadeh et al., 2016), Turkey (Central part – Sullivan et al., 2011).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Egypt as *Conomorium eremita* (Förster, 1841) (Ahmed & Kira, 1960).

***Conomorium armigerae* Doğanlar, 2020**

Conomorium armigerae Doğanlar (in Kaçar & Doğanlar), 2020:714, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Kaçar & Doğanlar, 2020).

Zoogeographical distribution: Western Palaearctic.

***Conomorium goelbasinensis* Doğanlar, 2020**

Conomorium goelbasinensis Doğanlar, 2020:242, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2020a).

Zoogeographical distribution: Western Palaearctic.

***Conomorium guenemekensis* Doğanlar, 2020**

Conomorium guenemekensis Doğanlar, 2020:243, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2020a).

Zoogeographical distribution: Western Palaearctic.

***Conomorium hacipasanensis* Doğanlar, 2020**

Conomorium hacipasanensis Doğanlar, 2020:248, ♀, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2020a).

Zoogeographical distribution: Western Palaearctic.

***Conomorium helvacioğluae* Doğanlar, 2020**

Conomorium helvacioğluae Doğanlar, 2020:245, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2020a).

Zoogeographical distribution: Western Palaearctic.

***Conomorium kayserinensis* Doğanlar, 2020**

Conomorium kayserinensis Doğanlar, 2020:247, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2020a).

Zoogeographical distribution: Western Palaearctic.

***Conomorium mehmetzahani* Kaçar & Doğanlar, 2020**

Conomorium mehmetzahani Kaçar & Doğanlar, 2020:716, ♀, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Western part – Kaçar & Doğanlar, 2020).

Zoogeographical distribution: Western Palaearctic.

***Conomorium patulum* (Walker, 1835)**

Pteromalus patulus Walker, 1835:479, ♀. – United Kingdom.

Distribution in the Middle East: Egypt (Herting, 1976), Iran (Nikdel et al., 2007), Morocco (Delucchi, 1962b; Herting, 1978; Mouna, 2013), Turkey (Eastern part – Doğanlar, 1985; Kaçar & Doğanlar, 2020).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Conomorium pityocampae* Graham, 1992**

Conomorium pityocampae Graham, 1992:200, ♀♂, Holotype ♀. – NHMUK, Slovenia.

Distribution in the Middle East: Algeria (Zamoum et al., 2017), Morocco (Mouna, 2013), Turkey (Central part – Doğanlar, 2020a; Kaçar & Doğanlar, 2020; Eastern part – Kaçar & Doğanlar, 2020).

Zoogeographical distribution: Western Palaearctic.

***Conomorium tashcayensis* Doğanlar, 2020**

Conomorium tashcayensis Doğanlar, 2020:244, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2020a).

Zoogeographical distribution: Western Palaearctic.

***Conomorium turhalensis* Doğanlar, 2020**

Conomorium turhalensis Doğanlar, 2020:240, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2020a; Kaçar & Doğanlar, 2020).

Zoogeographical distribution: Western Palaearctic.

Genus *Coruna* Walker, 1833

Coruna Walker, 1833:371, 379. Type species: *Coruna clavata* Walker, 1833, by monotypy.

***Coruna clavata* Walker, 1833**

Coruna clavata Walker, 1833:380, ♀♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Algeria (Hemidi et al., 2013; Chehema & Laamari, 2014).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oriental, Western Palaearctic.

Genus *Cratomus* Dalman, 1820

Perilampus (*Cratomus* Dalman, 1820):173–177. Type species: *Cynips megacephala* Fabricius, 1793, by monotypy.

***Cratomus megacephalus* (Fabricius, 1793)**

Cynips megacephala Fabricius, 1793:103. – Denmark.

Distribution in the Middle East: Morocco (Kissayi et al., 2021).

Zoogeographical distribution: Nearctic, Western Palaearctic.

Genus *Cryptoprymna* Förster, 1856

Cryptoprymna Förster, 1856:52, 56. Type species: *Prosodes ater* Walker, 1833, by monotypy.

***Cryptoprymna atra* (Walker, 1833)**

Prosodes ater Walker, 1833:375, ♂. – United Kingdom.

Distribution in the Middle East: Yemen (Jansta, 2012).

Zoogeographical distribution: Afrotropical, Western Palaearctic.

Genus *Cyclogastrella* Bukovskii, 1938

Cyclogastrella Bukovskii, 1938:153. Type species: *Cyclogastrella quercina* Bukovskii, 1938, by monotypy.

***Cyclogastrella clypealis* Bouček, 1965**

Cyclogastrella clypealis Bouček, 1965:26. – [former]Czechoslovakia.

Distribution in the Middle East: Morocco (Baur, 2000).

Zoogeographical distribution: Western Palaearctic.

***Cyclogastrella simplex* (Walker, 1834)**

Ormoceris simplex Walker, 1834:169, Lectotype ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Morocco (Delucchi, 1962a; Mouna, 2013).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Cyclogastrella deplanata* (Nees, 1834) (Delucchi, 1962a; Mouna, 2013).

Genus *Cyrtogaster* Walker, 1833

Cyrtogaster Walker, 1833:371, 381. Type species: *Cyrtogaster rufipes* Walker, 1833. Designation by Westwood, 1839.

***Cyrtogaster britteni* Askew, 1965**

Cyrtogaster britteni Askew, 1965:180, Holotype ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Iran (Moravvej et al., 2018).

Zoogeographical distribution: Nearctic, Western Palaearctic.

***Cyrtogaster clavicornis* Walker, 1833**

Cyrtogaster clavicornis Walker, 1833:383, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Algeria (Askew, 1965), Iran (Modarres Awal, 2012).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Algeria as *Polycystus cavicornis* (Walker) (Askew, 1965).

***Cyrtogaster vulgaris* Walker, 1833**

Cyrtogaster vulgaris Walker, 1833:382, Lectotype ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Davatchi & Shojai, 1968; Lotfalizadeh & Gharali, 2008; Hasani & Madjdzadeh, 2012; Modarres Awal, 2012; Dehdar & Madjdzadeh, 2013; Moravvej et al., 2018), Morocco (Delucchi, 1962b; Vago, 2002), Palestine (Askew, 1965), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Western Palaearctic.

Genus *Cyrtoptyx* Delucchi, 1956

Cyrtoptyx Delucchi, 1956:240, 252. Type species: *Dinarmus robustus* Masi, 1907. Original designation.

***Cyrtoptyx latipes* (Rondani, 1874)**

Pteromalus latipes Rondani, 1874:131. – Italy.

Distribution in the Middle East: Egypt (El-Khawas et al., 2000), Iran (Mehrnejad & Basirat, 2009; Mitroiu et al., 2011; Hasani & Madjdzadeh, 2012), Lebanon (Mechelany, 1969), Libya (Herting, 1978), Syria (Graham, 1969), Turkey (Western part – Yayla et al., 1995; Eastern part – Gözüaçik & Simsek, 2015), Yemen (Jansta, 2012).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from from Iran as *Cyrtoptyx* cf. *latipes* (Mitroiu et al., 2011; Hasani & Madjdzadeh, 2012), and from Lebanon (Mechelany, 1969), Syria (Graham, 1969) and Turkey (Yayla et al., 1995) as *Cyrtoptyx dacicida* (Masi, 1907).

***Cyrtoptyx lichtensteini* (Masi, 1922)**

Dinarmus lichtensteini Masi, 1922:77. – France.

Distribution in the Middle East: Iran (Lotfalizadeh & Hosseini, 2014; Shojaey et al., 2021), Morocco (Delucchi, 1962a), Turkey (Central part – Mete & Lotfalizadeh, 2019).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Western Palaearctic.

***Cyrtoptyx pistaciae* (Nikolskaya, 1935)**

Dinarmus pistaciae Nikolskaya, 1935:86. –USSR.

Distribution in the Middle East: Iran (Jalilvand & Gholipour, 2002; Lotfalizadeh & Gharali, 2008; Modarres Awal, 2012).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Cyrtoptyx robustus* (Masi, 1907)**

Dinarmus robustus Masi, 1907:288. – Italy.

Distribution in the Middle East: Iran (Sadeghi et al., 2009; Modarres Awal, 2012), Jordan (Rizzo & Askew, 2008; Askew et al., 2013), Turkey (Askew et al., 2013; Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

Genus *Dibrachoides* Kurdjumov, 1913

Dibrachoides Kurdjumov, 1913:3, 12. Type species: *Pteromalus dynastes* Förster, 1841, original designation.

Dibrachoides dynastes (Förster, 1841)

Pteromalus dynastes Förster, 1841:24. – Germany.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; Dehdar & Madjdzadeh, 2013), Morocco (Vago, 2002), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Genus *Dibrachys* Förster, 1856

Dibrachys Förster, 1856:65. Type species: *Pteromalus Bouchéanus* Ratzeburg, 1844. Designation by Thomson, 1878.

Dibrachys affinis Masi, 1907

Dibrachys affinis Masi, 1907:250. – Italy.

Distribution in the Middle East: Algeria (Thompson, 1958), Iran (Lotfalizadeh et al., 2012a), Morocco (Vago, 2002), Turkey (Western part – Öncüer, 1991).

Zoogeographical distribution: Western Palaearctic.

Dibrachys lignicola Graham, 1969

Dibrachys lignicola Graham, 1969:810, Holotype ♀. – HDOU, Ireland (Eire).

Distribution in the Middle East: Algeria (Panis & Demolin, 1975), Iran (Ziaaddini et al., 2014), Morocco (Peters & Baur, 2011; Mouna, 2013).

Zoogeographical distribution: Eastern Palaearctic (Ziaaddini et al., 2014), Nearctic, Western Palaearctic.

Dibrachys microgastri (Bouché, 1834)

Diplolepis microgastri Bouché, 1834:168, Neotype ♀. – ZMUH, Germany.

Distribution in the Middle East: Algeria (Peters & Baur, 2011), Egypt (Peters & Baur, 2011), Iran (Haeselbarth 1983; Mashhadi Jafarloo & Talebi Chaichi, 2002; Mehrnejad & Basirat, 2009; Mitroiu et al., 2011; Hasani & Madjdzadeh, 2012; Modarres Awal, 2012), Iraq (Alrubeai, 2017), Morocco (Peters & Baur, 2011; Mouna, 2013), Syria (Peters & Baur, 2011; Basheer et al., 2016), Tunisia (Peters & Baur, 2011), Turkey (Gülel, 1988; Central part – Öncüer, 1991; Sullivan et al., 2011; Peters & Baur, 2011; Eastern and Western part – Peters & Baur, 2011).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded as *Dibrachys boarmiae* (Walker, 1863) from Iran (Mashhadi Jafarloo & Talebi Chaichi, 2002; Mehrnejad & Basirat, 2009; Mitroiu et al., 2011; Modarres Awal, 2012), Turkey (Gülel, 1988; Öncüer, 1991; Sullivan et al., 2011), Iraq (Alrubeai, 2017), and Morocco (Mouna, 2013) and as *Dibrachys cavus* (Walker, 1835) from Syria (Basheer et al., 2016) and Turkey (Öncüer, 1991).

Dibrachys palandoekenus Doğanlar, 1987

Dibrachys palandoekenus Doğanlar, 1987:195, ♀♂, Holotype ♀. – EMET, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1987).

Zoogeographical distribution: Western Palaearctic.

Genus *Dinarmoides* Masi, 1924

Dinarmoides Masi, 1924:232. Type species: *Dinarmoides spilopterus* Masi, 1924, by monotypy.

Dinarmoides spilopterus Masi, 1924

Dinarmoides spilopterus Masi, 1924:232, ♀. – Italy.

Distribution in the Middle East: Morocco (Kissayi et al., 2021), Yemen (Jansta, 2012).

Zoogeographical distribution: Afrotropical, Eastern and Western Palaearctic.

Genus *Dinarmus* Thomson, 1878

Dinarmus Thomson, 1878:56 (as subgenus of *Dimachus* Thomson). Type species: *Dimachus acutus* Thomson, 1878. Designated by Ashmead, 1904.

Dinarmus acutus (Thomson, 1878)

Dimachus (*Dinarmus*) *acutus* Thomson, 1878:56, Holotype ♀. – MZLU, Sweden.

Material examined. 7♀♀, Iran: North Khorasan province, Maneh and Semelghan, Qaleh-Khan (37°30'36"N, 56°46'16"E), Malaise trap, 09.08.2018, 2♀♀, Z. Rahmani Leg.; South Khorasan province, Giuk (32°47'39"N, 59°07'23"E), swept on Weed, 18.06.2017, 1♀, B. Motamedinia Leg.; Kermanshah province, Sonqur (34°46'30"N, 47°32'48"E), swept on Weed, 25.04.2013, 2♀♀, Z. Sharifi Leg.; Sistan-o Baluchestan province, Zabol (31°02'11"N, 61°32'14"E), Malaise trap, 02.03.2016, 2♀♀, M, Enayatnia Leg.

Distribution in the Middle East: Algeria (Herting, 1973), Egypt (Abu-shall Amany & Tawfeek, 2019), Iran (Mitroiu et al., 2011; current study), Iraq (Abdul-Rassoul, 1990), Israel (Garrido Torres & Nieves-Aldrey, 1999), Morocco (Delucchi, 1962a), Turkey (Eastern part – Doğanlar, 1985; Western part – Hizal & Parlak, 2013).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Nearctic, Oriental, Western Palaearctic.

Dinarmus altifrons (Walker, 1862)

Pteromalus altifrons Walker, 1862:388, Lectotype ♀. – NHMUK, South Africa.

Material examined. 3♀♀, Iran: North Khorasan province, Maneh and Semelghan, Qaleh-Khan (37°30'36"N, 56°46'16"E), Malaise trap, 09.08.2018, 1♀, Z. Rahmani leg.; Kermanshah province, Sonqur (34°46'30"N, 47°32'48"E), swept on Weed, 25.04.2013, 2♀♀, Z. Sharifi Leg.

Distribution in the Middle East: Algeria (Rasplus, 1989), Iran (Rahmani et al., 2021; current study), Israel (Delobel et al., 2003).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Israel as *Oedaule stringifrons* Waterston, 1922 (Delobel et al., 2003).

Dinarmus basalis (Rondani, 1877)

Entedon basalis Rondani, 1877:174, Lectotype ♂. – MZUF, Italy.

Distribution in the Middle East: Algeria (Herting, 1973), Egypt (Bouček, 1974; Youssef, 2021), Iran (Hasani et al., 2011; Hasani & Madjzadeh, 2012; Modarres Awal, 2012; Moravvej et al., 2018), Israel (OILB, 1971), Morocco (Kissayi et al., 2021).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Iran as *Bruchobius laticeps* Ashmead, 1904 (Modarres Awal, 2012).

***Dinarmus italicus* (Masi, 1922)**

Oedaule italica Masi, 1922:162. – Italy.

Distribution in the Middle East: Algeria (Graham, 1969), Turkey (Central part – Tuatay et al., 1972).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Dinarmus vagabundus* (Timberlake, 1926)**

Bruchobius vagabundus Timberlake, 1926:305, ♀♂. – Hawaii.

Distribution in the Middle East: Iran (Lotfalizadeh & Hosseini, 2013).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Genus *Dinotiscus* Ghesquière, 1946

Dinotiscus Ghesquière, 1946:370. Type species: *Dinotus bidentulus* Thomson, 1878. Designation by Ashmead, 1904.

***Dinotiscus colon* (Linnaeus, 1758)**

Sphex colon Linnaeus, 1758:571, Lectotype ♂. – LSUK, Sweden.

Distribution in the Middle East: Iran (Davatchi & Shojai, 1968; Shojai, 1998; Lotfalizadeh & Khalghani, 2008; Modarres Awal, 2012), Tunisia (Arambourg, 1964), Turkey (Eastern part – Schimitschek, 1940; Ünal, 2010).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Western Palaearctic.

Remarks: This species has been recorded from Iran (Shojai, 1998; Modarres Awal, 2012), Tunisia (Arambourg, 1964) and Turkey (Schimitschek, 1940; Ünal, 2010) as *Cheiopachus colon* Linnaeus, 1758.

***Dinotiscus eupterus* (Walker, 1836)**

Pteromalus eupterus Walker, 1836:482, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Morocco (Mouna, 2013), Turkey (Eastern part – Schimitschek, 1940; Herting, 1973; Ünal, 2010).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oceanic, Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Pteromalus lanceolatus* Ratzeburg, 1848 (Schimitschek, 1940).

Genus *Erdoesina* Graham, 1957

Erdoesina Graham, 1957:180. Type species: *Pteromalus alboannulatus* Ratzeburg, 1852, original designation and monotypy.

***Erdoesina alboannulata* (Ratzeburg, 1852)**

Pteromalus alboannulatus Ratzeburg, 1852:231. – Germany.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Erythromalus* Graham, 1956

Erythromalus Graham, 1956:83. Type species: *Pteromalus nubilipennis* Walker, 1835, original designation.

Erythromalus sp.

Distribution in the Middle East: Morocco (Kissayi et al., 2021).

Genus *Eumacepolus* Graham, 1957

Eumacepolus Graham, 1957:137. Type species: *Eumacepolus saxeseni* Graham, 1957, original designation and monotypy.

***Eumacepolus yemensis* Narendran, 2006**

Eumacepolus yemensis Narendran (in Narendran et al.), 2006:29–31, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran et al., 2006).

Zoogeographical distribution: Afrotropical.

Genus *Euneura* Walker, 1844

Euneura Walker, 1844:331. Type species: *Euneura augarus* Walker, 1844, by monotypy.

***Euneura lachni* (Ashmead, 1887)**

Pachycrepis lachni Ashmead, 1887:193, Holotype ♀. – USNM, USA.

Distribution in the Middle East: Iran (OILB, 1971; Modarres Awal, 2012; Rahmani et al., 2021).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Iran as *Euneura laeviuscula* Graham, 1969 (Modarres Awal, 2012).

Genus *Fedelia* Delucchi, 1962

Fedelia Delucchi, 1962:113–114. Type species: *Fedelia nebulosa* Delucchi, 1962, original designation and monotypy.

***Fedelia nebulosa* Delucchi, 1962**

Fedelia nebulosa Delucchi, 1962:114–115, Holotype ♀. – ETHZ, Morocco.

Distribution in the Middle East: Algeria (Koponen & Askew, 2002), Morocco (Delucchi, 1962a).

Zoogeographical distribution: Western Palaearctic.

Genus *Goidanichium* Bouček, 1970

Goidanichium Bouček, 1970:55. Type species: *Goidanichium atrum* Bouček, 1970, original designation and monotypy.

***Goidanichium atrum* Bouček, 1970**

Goidanichium atrum Bouček, 1970:56–57, Holotype. – NHMUK, Italy.

Distribution in the Middle East: Turkey (Western part – Bouček, 1970a; Tuatay et al., 1972).

Zoogeographical distribution: Western Palaearctic.

Genus *Gugolzia* Delucchi & Steffan, 1956

Gugolzia Delucchi & Steffan, 1956:30. Type species: *Gugolzia harmolitae* Delucchi & Steffan, 1956, by monotypy.

***Gugolzia bademia* Doğanlar, 2004**

Gugolzia bademia Doğanlar (in Doğanlar & Bolu), 2004:76, ♀♂, Holotype ♀. – MKUT, Turkey.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008), Turkey (Eastern part – Doğanlar & Bolu, 2004).

Zoogeographical distribution: Western Palaearctic.

***Gugolzia bandirmae* Doğanlar, 2019**

Gugolzia bandirmae Doğanlar, 2019:5, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2019).

Zoogeographical distribution: Western Palaearctic.

***Gugolzia harmolitae* Delucchi & Steffan, 1956**

Gugolzia harmolitae Delucchi & Steffan, 1956:31, Holotype ♀. – MNHN, France.

Material examined. 1♀, Iran, Sistan-o Baluchestan province, Sarbaz (26°41'54"N, 61°36'59"E), swept on Weed, 23.04. 2015, M. Ghafouri Moghaddam Leg.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; current study), Turkey (Western part – Doğanlar & Doğanlar, 2010).

Zoogeographical distribution: Western Palaearctic.

***Gugolzia karadagae* Doğanlar & Doğanlar, 2010**

Gugolzia karadagae Doğanlar & Doğanlar, 2010:32, ♀♂, Holotype ♀. – MKUT, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar & Doğanlar, 2010).

Zoogeographical distribution: Western Palaearctic.

***Gugolzia melengicia* Doğanlar, 2010**

Gugolzia melengicia Doğanlar (in Doğanlar & Doğanlar), 2010:30, ♀♂, Holotype ♀. – MKUT, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar & Doğanlar, 2010).

Zoogeographical distribution: Western Palaearctic.

***Gugolzia oezdenoernecki* Doğanlar, 2019**

Gugolzia oezdenoernecki Doğanlar, 2019: 3, ♀♂, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2019).

Zoogeographical distribution: Western Palaearctic.

***Gugolzia tuzlucanensis* Doğanlar, Gözüaçak & Subaşı, 2018**

Gugolzia tuzlucanensis Doğanlar, Gözüaçak & Subaşı, 2018:375, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar et al., 2018).

Zoogeographical distribution: Western Palaearctic.

Genus *Habritys* Thomson, 1878

Habritys Thomson, 1878:54 (as subgenus of *Dimachus* Thomson). Type species: *Pteromalus brevicornis* Ratzeburg 1844, by monotypy.

***Habritys brevicornis* (Ratzeburg, 1844)**

Pteromalus brevicornis Ratzeburg, 1844:201. – Germany.

Material examined. 2♀♀, Iran, Kermanshah province, Sonqur (34°46'30"N, 47°32'48"E), swept on Weed, 25.04.2013, Z. Sharifi Leg.

Distribution in the Middle East: Iran (Hassan-Pashai Mehr & Lotfalizadeh, 2015; Rahmani et al., 2021; current study).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Genus *Hemitrichus* Thomson, 1878

Hemitrichus Thomson, 1878:54 (as subgenus of *Dimachus* Thomson). Type species: *Dimachus rufipes* Thomson, 1878, by monotypy.

***Hemitrichus longigaster* Narendran, 2006**

Hemitrichus longigaster Narendran (in Narendran et al.), 2006:32–34, ♀♂, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran et al., 2006).

Zoogeographical distribution: Afrotropical.

Genus *Hobbya* Delucchi, 1957

Hobbya Delucchi, 1957:142. Type species: *Pteromalus stenonotus* Ratzeburg, 1848, by original designation.

***Hobbya stenonota* (Ratzeburg, 1848)**

Pteromalus stenonotus Ratzeburg, 1848:206, ♀. – Germany.

Distribution in the Middle East: Iran (Sadeghi et al., 2009; Lotfalizadeh et al., 2012b), Jordan (Rizzo & Askew, 2008; Askew et al., 2013), Morocco (Delucchi, 1962b), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Homoporus* Thomson, 1878

Homoporus Thomson, 1878:60, 64. Type species: *Pteromalus fulviventris* Walker, 1835. Designation by Ashmead, 1904.

***Homoporus aegyptiacus* Subba Rao, 1973**

Homoporus aegyptiacus Subba Rao, 1973: 356, ♀♂, Holotype ♀. – NHMUK, Egypt.

Distribution in the Middle East: Egypt (Subba Rao, 1973).

Zoogeographical distribution: Western Palaearctic.

***Homoporus apharetus* (Walker, 1839)**

Pteromalus apharetus Walker, 1839:228, Lectotype ♂. – NHMUK, United Kingdom.

Material examined. 5♀, Iran, North Khorasan province, Maneh and Samalghan: Qaleh-Khan (37°30'32"N, 56°46'50"E), swept on Weed, 05.07.2017, 1♀, 20.07.2017, 2♀, 07.08.2017, 1♀; Haver mountain (37°25'07.31"N, 56°49'23.73"E), swept on Weed, 03.07.2017, 1♀, Z. Rahmani leg.

Distribution in the Middle East: Iran (Rahmani et al., 2021; Shojaey et al., 2021; current study).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Homoporus arestor* (Walker, 1848)**

Pteromalus arestor Walker, 1848:179, ♀. – United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Homoporus budensis* Erdős, 1953**

Homoporus budensis Erdős, 1953:244, Lectotype ♀. – HNHM, Hungary.

Distribution in the Middle East: Morocco (Delucchi, 1962b).

Zoogeographical distribution: Western Palaearctic.

***Homoporus destructor* (Say, 1817)**

Ceraphron destructor Say, 1817:47–48, ♀♂. – USA.

Distribution in the Middle East: Morocco (Delucchi, 1962a; Herting, 1978), Tunisia (Peck, 1963).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Homoporus febriculosus* (Girault, 1917)**

Merisus febriculosus Girault, 1917:17, ♀. – USNM, USA.

Material examined. 3♀♀, Iran: North Khorasan province, Maneh and Semelghan, Qaleh-Khan ((37°30'32"N, 56°46'50"E)), Malaise trap, 19.07.2018, 2♀♀, Z. Rahmani leg.; South Khorasan province, Birjand, Mohammadiyah (32°25'55"N, 58°48'57"E), Malaise trap, 03.07.2016, 1♀, B. Motamedinia, leg.

Distribution in the Middle East: Iran (Lotfalizadeh et al., 2020; Shojaey et al., 2021; current study), Turkey (Central part – Koçak & Ozdemir, 2012).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Homoporus fulviventris* (Walker, 1835)**

Pteromalus fulviventris Walker, 1835:190, Lectotype ♀. – NHMUK, United Kingdom.

Material examined. 1♀, Iran, North Khorasan province, Maneh and Semelghan, Ghorkhod (37°28'17.52"N, 56°24'24.84"E), swept on Weed, 25.06.2018, Z. Rahmani, leg.

Distribution in the Middle East: Egypt (Gadallah et al., 2014), Iran (Mitroiu et al., 2011; Shojaey et al., 2021; current study), Morocco (Benyahia, 2016), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Homoporus gibbiscuta* (Thomson, 1878)**

Merisus (Homoporus) gibbiscuta Thomson, 1878:66, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Morocco (Delucchi, 1962a).

Zoogeographical distribution: Nearctic, Western Palaearctic.

***Homoporus nypsius* (Walker, 1839)**

Pteromalus nypsius Walker, 1839: 274, Lectotype ♀. – NHMUK, France.

Distribution in the Middle East: Morocco (Delucchi, 1962a; Vago, 2002).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oceanic, Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Homoporus chalcidiphagus* (Walsh & Riley, 1869) (Delucchi, 1962a).

Homoporus pulchripes Erdős, 1953

Homoporus pulchripes Erdős, 1953:245, Holotype ♀. – HNHM, Hungary.

Material examined. Iran, North Khorasan province, Maneh and Semelghan, Ghorkhod (37°28'17.52"N, 56°24'24.84"E), swept on Weed, 05.06.2018, 1♀, Z. Rahmani, leg.

Diagnosis. Female. Body length 2 mm. Head in frontal view 1.4 times wider than high. Antenna with three anelli and five funicular segments, all funicular segments transverse. Toruli inserted above lower margins of eyes (Fig. 2A). Scape not reaching lower edge of median ocellus. Width of head 2.06 times its length in dorsal view. POL 2 times longer than OOL (Fig. 2B). Eye height 1.41 times longer than its length in lateral view. Mesoscutum 1.43 times wider than its length (Fig. 2C). Propodeum shallow reticulate, median carina complete (Fig. 2D). Fore wing with basal cell and basal fold pilose; marginal vein 1.23 times length of postmarginal vein and 2.36 times longer than stigmal vein (Fig. 2E). Gaster 1.8 times longer than wide, posterior margin of first tergite straight. Body dark green (Fig. 2F).

Distribution in the Middle East: Iran (New record).

Zoogeographical distribution: Eastern and Western Palaearctic.

Homoporus rungsi Delucchi, 1962

Homoporus rungsi Delucchi, 1962:120, Holotype ♀. – ETHZ, Morocco.

Distribution in the Middle East: Morocco (Delucchi, 1962a).

Zoogeographical distribution: Western Palaearctic.

Homoporus semiluteus (Walker, 1872)

Pteromalus semiluteus Walker, 1872:101, Lectotype ♀. – NHMUK, France.

Distribution in the Middle East: Iran (Hasani et al., 2011; Hasani & Madjdzadeh, 2012).

Zoogeographical distribution: Eastern and Western Palaearctic.

Homoporus silvanus Delucchi, 1962

Homoporus silvanus Delucchi, 1962:15, Holotype ♀. – ETHZ, Morocco.

Distribution in the Middle East: Morocco (Delucchi, 1962a, 1962b).

Zoogeographical distribution: Western Palaearctic.

Homoporus subniger (Walker, 1835)

Pteromalus subniger Walker, 1835:95, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh, 2015), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Homoporus sucinus Delucchi, 1962

Homoporus sucinus Delucchi, 1962:119, Holotype ♀. – ETHZ, Morocco.

Distribution in the Middle East: Morocco (Delucchi, 1962a).

Zoogeographical distribution: Western Palaearctic.

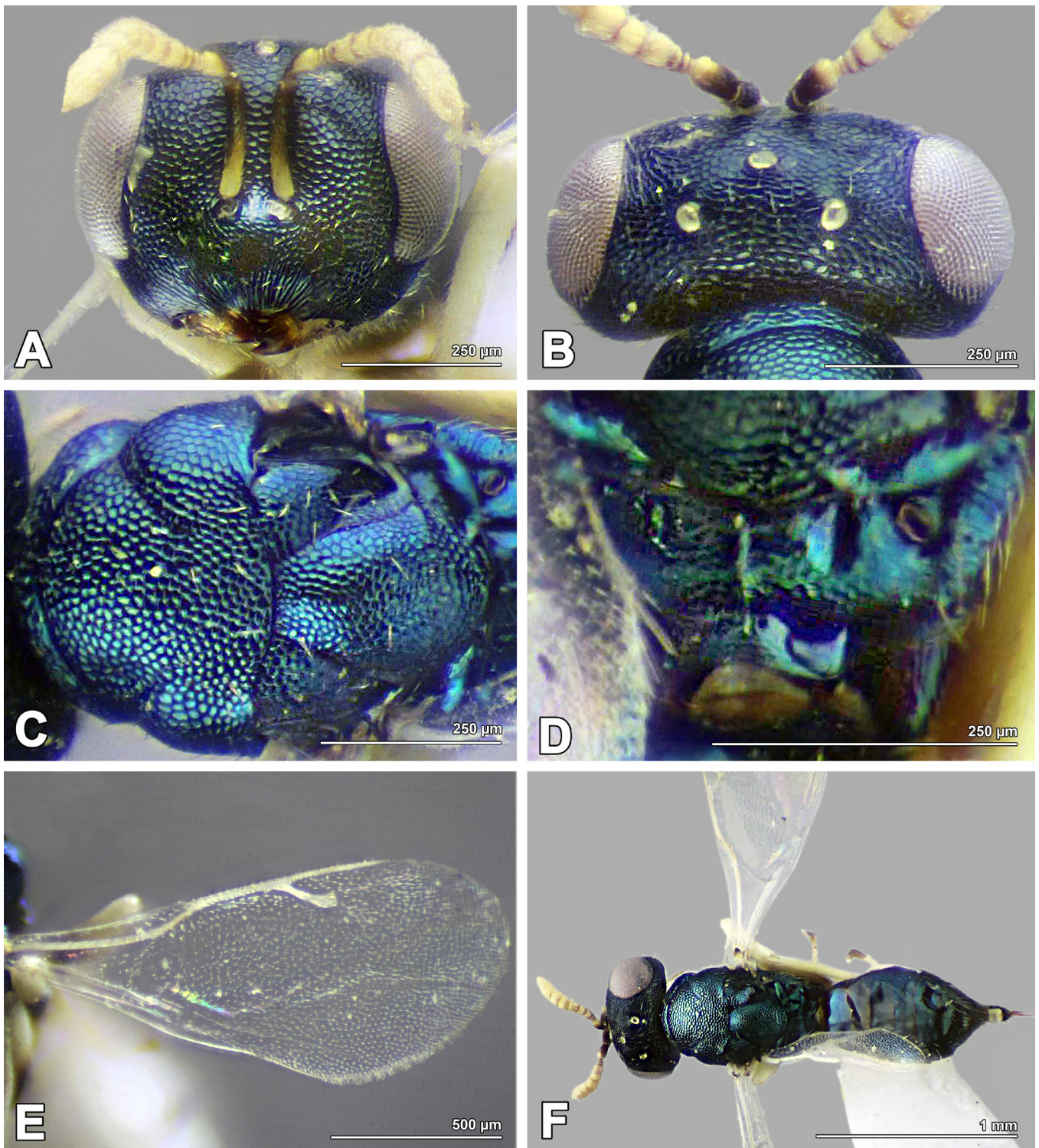


Figure 2. *Homoporus pulchripes* Erdős, 1953, Female. **A.** Head in frontal view; **B.** Head in dorsal view; **C.** Mesonotum in dorsal view, **D.** Propodeum in dorsal view; **E.** Fore wing venation; **F.** General habitus in dorsal view.

Genus *Ischyroptyx* Delucchi, 1956

Ischyroptyx Delucchi, 1956:256. Type species: *Dinarmus ligusticus* Masi, 1922, original designation and monotypy.

***Ischyroptyx ligusticus* (Masi, 1922)**

Dinarmus ligusticus Masi, 1922:274, ♀. – Italy.

Distribution in the Middle East: Iran (Rahmani et al., 2019b), Morocco (Vago, 2002).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Lampoterma* Graham, 1956

Lampoterma Graham, 1956:256. Type species: *Metastenus viridis* Thomson, 1876, original designation.

***Lampoterma ceutorhynchae* Doğanlar, 2018**

Lampoterma ceutorhynchae Doğanlar, 2018:389, Holotype ♀. – MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2018a).

Zoogeographical distribution: Western Palaearctic.

***Lampoterma viride* (Thomson, 1876)**

Metastenus viridis Thomson, 1876:206, ♀. – MZLU, Sweden.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

***Lampoterma yoncae* Doğanlar, 2018**

Lampoterma yoncae Doğanlar, 2018:391, Holotype ♀. –MCES, Turkey.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 2018a).

Zoogeographical distribution: Western Palaearctic.

Genus *Lariophagus* Crawford, 1909

Lariophagus Crawford, 1909:52, Type species: *Lariophagus texanus* Crawford, 1909, by monotypy.

***Lariophagus distinguendus* (Förster, 1841)**

Pteromalus distinguendus Förster, 1841:17. – Germany.

Distribution in the Middle East: Algeria (Aoues et al., 2017), Egypt (Kaschef, 1961; Awadallah et al., 1985), Iran (Shahhosseini & Kamali, 1989; Modarres Awal., 2012), Israel (Gonen & Kugler, 1970), Lebanon (Herting, 1973), Morocco (Delucchi, 1962a; Vago, 2002), Syria (Bilaf et al., 2011), Turkey (Western part–Tuatay et al., 1972).

Zoogeographical distribution: Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Genus *Meraporus* Walker, 1834

Meraporus Walker, 1834:298. Type species: *Meraporus graminicola* Walker, 1834, by subsequent designation.

***Meraporus graminicola* Walker, 1834**

Meraporus graminicola Walker, 1834:299, ♀♂. – United Kingdom.

Distribution in the Middle East: Morocco (Delucchi, 1962a; Herting, 1978; Vago, 2002).

Zoogeographical distribution: Western Palaearctic.

Genus *Merismomorpha* Girault, 1913

Merismomorpha Girault, 1913:82. Type species: *Merismomorpha acutiventris* Girault, 1913, original designation.

Merismomorpha gatra Narendran, 2006

Merismomorpha gatra Narendran (in Narendran et al.), 2006:31–32, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran et al., 2006).

Zoogeographical distribution: Afrotropical.

Genus *Merisus* Walker, 1834

Merisus Walker, 1834:166. Type species: *Merisus splendidus* Walker, 1834, by monotypy.

Merisus splendidus Walker, 1834

Merisus splendidus Walker, 1834:167, ♀.

Distribution in the Middle East: Morocco (Delucchi, 1962a), Turkey (Eastern part – Doğanlar, 1985; Central part – Korkmaz et al., 2010).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Mesopolobus* Westwood, 1833

Mesopolobus Westwood, 1833:443. Type species: *Mesopolobus fasciiventris* Westwood, 1833, by monotypy.

Mesopolobus aequus (Walker, 1834)

Eutelus aequus Walker, 1834:364, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Mesopolobus albitarsus (Walker, 1834)

Amblymerus albitarsus Walker, 1834:346, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Sadeghi et al., 2009).

Zoogeographical distribution: Eastern and Western Palaearctic.

Mesopolobus amaenus (Walker, 1834)

Amblymerus amaenus Walker, 1834:307, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Haeselbarth, 1983; Sadeghi et al., 2009), Israel (Pujade-Villar et al., 2003), Jordan (Rizzo & Askew, 2008; Askew et al., 2013), Morocco (Benyahia, 2016), Turkey (Askew et al., 2013; Central and Western part– Mete & Lotfalizadeh, 2019).

Zoogeographical distribution: Eastern Palaearctic, Oceanic, Western Palaearctic.

Remarks: This species has been recorded from Israel as *Mesopolobus amoenus* (Walker, 1834) (Pujade-Villar et al., 2003).

Mesopolobus arcanus Askew, 1997

Mesopolobus arcanus Askew (in Askew & Blasco-Zumeta), 1997:972, ♀♂, Holotype ♀. – NHMUK, Spain.

Distribution in the Middle East: Iran (Alemansour et al., 2010).

Zoogeographical distribution: Western Palaearctic.

***Mesopolobus aspilus* (Walker, 1835)**

Pteromalus aspilus Walker, 1835:485, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Taher et al., 2022), Turkey (Western part – Doğanlar, 2011; Doğanlar et al., 2011; Eastern part – Polat & Tozlu, 2010).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

***Mesopolobus deserti* Dzhanokmen, 1994**

Mesopolobus deserti Dzhanokmen, 1994:373–374, ♀♂, Holotype ♀. – ZISP, Kazakhstan.

Distribution in the Middle East: Iran (Hasani et al., 2011).

Zoogeographical distribution: Eastern Palaearctic.

***Mesopolobus diffinis* (Walker, 1834)**

Eutelus diffinis Walker, 1834:358, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Morocco (Delucchi, 1962b), Turkey (Eastern part – Doğanlar, 1985; Western part – Doğanlar, 2011; Doğanlar et al., 2011).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Mesopolobus dubius* (Walker, 1834)**

Amblymerus dubius Walker, 1834:308, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Western part – Sarıkaya & Avcı, 2005; Doğanlar, 2014).

Zoogeographical distribution: Western Palaearctic.

***Mesopolobus fasciiventris* Westwood, 1833**

Mesopolobus fasciiventris Westwood, 1833:443, ♂. – HDOU, United Kingdom.

Distribution in the Middle East: Iran (Sadeghi et al., 2009; Mahdavi & Madjdzadeh, 2013).

Zoogeographical distribution: Eastern Palaearctic (Mahdavi & Madjdzadeh, 2013), Nearctic, Western Palaearctic.

***Mesopolobus gemellus* Baur & Muller, 2007**

Mesopolobus gemellus Baur & Muller, 2007:389–392, ♀♂, Holotype ♂. – NMBE, Switzerland.

Distribution in the Middle East: Morocco (Benyahia, 2016).

Zoogeographical distribution: Western Palaearctic.

***Mesopolobus graminum* (Hårdh, 1950)**

Amblymerus graminum Hårdh, 1950:88, ♀. – Finland.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Mesopolobus incultus* (Walker, 1834)**

Platyterma incultum Walker, 1834:340, Lectotype ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Morocco (Baur et al., 2007), Syria (Graham, 1969), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oceanic, Western Palaearctic.

***Mesopolobus lichtensteini* (Mayr, 1903)**

Eutelus lichtensteini Mayr, 1903:388, 390, Lectotype ♀. – NHMW, France.

Distribution in the Middle East: Algeria (Pujade-Villar, 1994).

Zoogeographical distribution: Western Palaearctic.

***Mesopolobus laticornis* (Walker, 1834)**

Platyterma laticorne Walker, 1834:304, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

***Mesopolobus mediterraneus* (Mayr, 1903)**

Eutelus mediterraneus Mayr, 1903:389, ♀♂. – Italy.

Distribution in the Middle East: Tunisia (Askew et al., 2013), Turkey (Western part – Yayla et al., 1995; Sarıkaya & Avcı, 2005; Doğanlar, 2011; Doğanlar et al., 2011).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Mesopolobus morys* (Walker, 1848)**

Pteromalus morys Walker, 1848:197, Lectotype ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Morocco (Delucchi, 1962b), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic Nearctic, Western Palaearctic.

***Mesopolobus nobilis* (Walker, 1834)**

Platyterma nobile Walker, 1834:304, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Morocco (Kissayi et al., 2021), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oceanic, Western Palaearctic.

***Mesopolobus ramulosus* Narendran, 2012**

Mesopolobus ramulosus Narendran (*in* Narendran et al.), 2012:128–130, Holotype ♀. – AMUZ, India.

Distribution in the Middle East: Yemen (Narendran et al., 2012).

Zoogeographical distribution: Afrotropical, Oriental.

***Mesopolobus sericeus* (Förster, 1770)**

Cynips sericeus Förster, 1770:14, Neotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Sadeghi et al., 2009; Hasani & Madjdzadeh, 2012; Mahdavi et al., 2015), Israel (Bouček, 1977), Turkey (Eastern part – Özbek et al., 1999; Central part – Genç, 2003).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Mesopolobus jucundus* (Walker, 1834) (Özbek et al., 1999; Genç, 2003).

***Mesopolobus spermotrophus* Hussey, 1960**

Mesopolobus spermotrophus Hussey, 1960:237, ♀♂, Holotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Morocco (Mouna, 2013).

Zoogeographical distribution: Nearctic, Western Palaearctic.

***Mesopolobus tamaricum* (Ferrière, 1931)**

Eutelus tamaricum Ferrière, 1931:267, NHMUK, Algeria.

Distribution in the Middle East: Algeria (Noyes, 2019).

Zoogeographical distribution: Western Palaearctic.

***Mesopolobus teliformis* (Walker, 1834)**

Platyterma teliforme Walker, 1834:305, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Morocco (Delucchi, 1962b), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Mesopolobus tibialis* (Westwood, 1833)**

Platymesopus tibialis Westwood, 1833:444, ♂. – United Kingdom.

Distribution in the Middle East: Iran (Sadeghi et al., 2009), Morocco (Delucchi, 1962b), Syria (Graham, 1969), Turkey (Western part – Doğanlar, 2014).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

***Mesopolobus typographi* (Ruschka, 1924)**

Eutelus typographi Ruschka, 1924:13, ♀♂. – Sweden.

Distribution in the Middle East: Iran (Gibson et al., 2021).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Mesopolobus xanthocerus* (Thomson, 1878)**

Eutelus (Eutelus) xanthocerus Thomson, 1878:72, Lectotype ♂. – MZLU, Sweden.

Distribution in the Middle East: Iran (Dehdar & Madjdzadeh, 2016), Morocco (Delucchi, 1962b).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Metacolus* Förster, 1856

Metacolus Förster, 1856:65. Type species: *Metacolus unifasciatus* Förster, 1856, by monotypy.

***Metacolus azureus* (Ratzeburg, 1844)**

Pteromalus azureus Ratzeburg, 1844:203, ♂. – Germany.

Distribution in the Middle East: Israel (Mendel, 1986).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Metacolus unifasciatus* Förster, 1856**

Metacolus 1-fasciatus Förster, 1856:70, ♀♂. – Germany.

Distribution in the Middle East: Israel (Mendel, 1986), Morocco (Kissayi et al., 2021), Turkey (Western part – Yayla et al., 1995).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Oriental, Western Palaearctic.

Genus *Metastenus* Walker, 1834

Metastenus Walker, 1834:301. Type species: *Metastenus concinnus* Walker, 1834, by monotypy.

Metastenus concinnus Walker, 1834

Metastenus concinnus Walker, 1834:302, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gharizadeh & Hesami, 2003; Baur, 2005).

Zoogeographical distribution: Eastern Palaearctic, Neotropical, Oriental, Western Palaearctic.

Genus *Miscogasteriella* Girault, 1915

Miscogasteriella Girault, 1915:196. Type species: *Miscogasteriella longiventris* Girault, 1915, original designation and monotypy.

Miscogasteriella yemenica Narendran & van Harten, 2007

Miscogasterella yemenica Narendran & van Harten, 2007:113–114, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2007b).

Zoogeographical distribution: Afrotropical.

Genus *Mokrzeckia* Mokrzecki, 1934

Mokrzeckia Mokrzecki, 1934:143. Type species: *Pteromalus pini* Hartig, 1838, by monotypy.

Mokrzeckia obscura Graham, 1969

Mokrzeckia obscura Graham, 1969:479, Holotype ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Iran (Afiunizadeh et al., 2013).

Zoogeographical distribution: Western Palaearctic.

Genus *Monoksa* Bouček, 1991

Monoksa Bouček, 1991:198, 200. Type species: *Monoksa dorsiplana* Bouček, 1991, original designation and monotypy.

Monoksa dorsiplana Bouček, 1991

Monoksa dorsiplana Bouček, 1991:200, ♀♂, Holotype ♀. – NHMUK, Israel.

Distribution in the Middle East: Israel (Bouček, 1991).

Zoogeographical distribution: Nearctic, Neotropical, Western Palaearctic.

Genus *Muscidifurax* Girault & Sanders, 1910

Muscidifurax Girault & Sanders, 1910:146. Type species: *Muscidifurax raptor* Girault & Sanders, 1910, original designation and monotypy.

Muscidifurax adanacus Doğanlar, 2007

Muscidifurax adanacus Doğanlar, 2007:245, Holotype ♀. – MKUT, Turkey.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2007).

Zoogeographical distribution: Western Palaearctic.

***Muscidifurax raptor* Girault & Sanders, 1910**

Muscidifurax raptor Girault & Sanders, 1910:149, Lectotype ♀. – INHS, USA.

Distribution in the Middle East: Egypt (Azab et al., 1962), Iran (Iranpour et al., 1991; Modarres Awal, 2012), Iraq (Abdul-Rassoul et al., 1999), Israel (Kogan & Legner, 1970; Havron & Margalit, 1991; Chiel & Kuslitzky, 2016; Betelman et al., 2017; Biale et al., 2020), Jordan (Biale et al., 2020), Morocco (Vago, 2002).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Western Palaearctic.

***Muscidifurax zaraptor* Kogan & Legner, 1970**

Muscidifurax zaraptor Kogan & Legner, 1970:1279, ♀♂, Holotype ♀. – INHS, USA.

Distribution in the Middle East: Israel (Havron & Margalit, 1991; Alahmed, 1999; Chiel & Kuslitzky, 2016).

Zoogeographical distribution: Nearctic, Neotropical, Western Palaearctic.

Genus *Nasonia* Ashmead, 1904

Nasonia Ashmead, 1904:317, 318. Type species: *Nasonia brevicornis* Ashmead, 1904, by monotypy.

***Nasonia vitripennis* (Walker, 1836)**

Pteromalus vitripennis Walker, 1836:492, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Algeria (Marniche et al., 2020), Egypt (Azab et al., 1962; Darling & Werren, 1990; Nasser & Eraky, 1994), Iran (Iranpour et al., 1991; Modarres Awal, 2012), Iraq (Abdul-Rassoul et al., 1999), Israel (Peck, 1963; Darling & Werren, 1990), Morocco (Benyahia, 2016), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Iran as *Mormoniella vitripennis* (Walker, 1836) (Modarres Awal, 2012).

***Nasonia* sp.**

Distribution in the Middle East: Algeria (Naima, 2020).

Genus *Norbanus* Walker, 1843

Norbanus Walker, 1843:158. Type species: *Norbanus dysaules* Walker, 1843. Designation by Ashmead (1904): 320.

***Norbanus arcuatus* Xiao & Huang, 2001**

Norbanus arcuatus Xiao & Huang (in Xiao et al.), 2001:11, Holotype ♀. – IZCAS, China.

Distribution in the Middle East: Iran (Hesami et al., 2010).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Norbanus brevicornis* Szelenyi, 1974**

Norbanus brevicornis Szelenyi, 1974:347–357, Holotype ♀. – HNHM, Hungary.

Distribution in the Middle East: Iran (Shojaey et al., 2021).

Zoogeographical distribution: Eastern (Shojaey et al., 2021) and Western Palaearctic.

***Norbanus calabrus* (Masi, 1942)**

Picroscyctus calabrus Masi, 1942:285–286. – Italy.

Distribution in the Middle East: Iran (Lotfalizadeh, 2015), Turkey (Bouček, 1970b, 1977).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Picroscyctoides albiventris* Bouček, 1969 (Bouček, 1970b, 1977).

***Norbanus cerasiops* (Masi, 1922)**

Picroscyctoides cerasiops Masi, 1922:154–158, Lectotype ♀. – MSNG, Italy.

Distribution in the Middle East: Iran (Hasani et al., 2011), Morocco (Delucchi, 1962b; Herting, 1973; Rizzo & Mitroiu, 2010), Turkey (Central and Western part – Bouček, 1952).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

***Norbanus guyoni* (Giraud, 1870)**

Arthrolysis guyoni Giraud, 1870:484, ♀♂. – Algeria.

Distribution in the Middle East: Algeria (Giraud, 1870; Rizzo & Mitroiu, 2010), Libya (Rizzo & Mitroiu, 2010).

Zoogeographical distribution: Western Palaearctic.

***Norbanus meridionalis* (Masi, 1922)**

Picroscyctus meridionalis Masi, 1922:147. – Italy.

Distribution in the Middle East: Iran (Lotfalizadeh, 2015; Shojaey et al., 2021).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Norbanus obscurus* (Masi, 1922)**

Picroscyctoides obscurus Masi, 1922:154. – Italy.

Distribution in the Middle East: Algeria (Rizzo & Mitroiu, 2010), Iran (Lotfalizadeh, 2015), Syria (Rizzo & Mitroiu, 2010), Turkey (Central part – Korkmaz et al., 2010).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Norbanus persicus* Lotfalizadeh & Rasplus, 2020**

Norbanus persicus Lotfalizadeh & Rasplus (*in* Lotfalizadeh et al.), 2020:19, ♀♂, Holotype ♀. – HMIM, Iran.

Distribution in the Middle East: Iran (Lotfalizadeh et al., 2020).

Zoogeographical distribution: Western Palaearctic.

***Norbanus rasplusi* Lotfalizadeh, 2015**

Norbanus rasplusi Lotfalizadeh, 2015:430–432, ♀♂, Holotype ♀. – HMIM, Iran.

Distribution in the Middle East: Iran (Lotfalizadeh, 2015).

Zoogeographical distribution: Western Palaearctic.

***Norbanus scabriculus* (Nees, 1834)**

Pteromalus scabriculus Nees, 1834:100. – Germany.

Distribution in the Middle East: Iran (Lotfalizadeh, 2015).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Genus *Notoglyptus* Masi, 1917

Notoglyptus Masi, 1917:181. Type species: *Notoglyptus niger* Masi, 1917, original designation.

***Notoglyptus scutellaris* (Dodd & Girault, 1915)**

Merismus scutellaris Dodd & Girault (in Girault), 1915:328, Holotype ♀. – QM, Australia.

Distribution in the Middle East: Egypt (Gadallah et al., 2014), Iran (Moravvej et al., 2018), Morocco (Delucchi, 1962b; Andriescu & Mitroiu, 2001), Saudi Arabia (Bouček, 1976).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Notoglyptus niger* Masi, 1917 (Delucchi, 1962b) and from Saudi Arabia as *Notoglyptus virescens* Masi, 1917 (Bouček, 1976).

Genus *Novitzkyanus* Bouček, 1961

Novitzkyanus Bouček, 1961:68. Type species: *Novitzkyanus cryptogaster* Bouček, 1961, original designation and monotypy.

***Novitzkyanus cryptogaster* Bouček, 1961**

Novitzkyanus cryptogaster Bouček, 1961:70, ♀♂, Holotype ♀. – France.

Distribution in the Middle East: Iran (Rahmani et al., 2019b), Morocco (Delucchi, 1962a, 1962b).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Novitzkyanus tridentatus* Delucchi, 1962 (Delucchi, 1962a).

Genus *Oxysychnus* Delucchi, 1956

Oxysychnus Delucchi, 1956:246. Type species: *Dinarmus silvestrii* Masi, 1921, original designation.

***Oxysychnus kainophanestus* Narendran & van Harten, 2011**

Oxysychnus kainophanestus Narendran & van Harten, 2011:70, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2011).

Zoogeographical distribution: Afrotropical.

***Oxysychnus prosphtosus* Narendran & van Harten, 2011**

Oxysychnus prosphtosus Narendran & van Harten, 2011:67, Holotype ♀. – Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2011).

Zoogeographical distribution: Afrotropical.

***Oxysychnus regnieri* (Masi, 1934)**

Dinarmus regnieri Masi, 1934:98. – Morocco.

Distribution in the Middle East: Morocco (Masi, 1934).

Zoogeographical distribution: Western Palaearctic.

Genus *Pachycrepoideus* Ashmead, 1904

Pachycrepoideus Ashmead, 1904:329. Type species: *Pachycrepoideus dubius* Ashmead, 1904, by monotypy.

Pachycrepoideus vindemmiae (Rondani, 1875)

Pteromalus vindemmiae Rondani, 1875:145–148, Lectotype ♀. – MZUF, Italy.

Distribution in the Middle East: Egypt (El-Sabah et al., 2004), Iran (Farahani et al., 2010; Rahmani et al., 2021; Shojaey et al., 2021), Israel (OILB, 1971; Chiel & Kuslitzky, 2016), Morocco Delucchi, 1955), Syria (Ali & Schöller, 2014), Tunisia (Carton & Sokolowski, 1994; Delpuech et al., 1994; Harbi et al., 2015), Turkey (Western part – Doğanlar, 1985; Kaçar, 2020).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Pachycrepoideus vindemmiae* Rondani, 1875 and as *Pachycrepoideus elongata* Delucchi, 1955 (Delucchi, 1955), from Tunisia as *Pachycrepoideus dubius* Ashmead, 1904 (Delpuech et al., 1994) and as *Pachycrepoideus vindemmiae* (Rondani) (Carton & Sokolowski, 1994) and from Turkey as *Pachycrepoideus vindemmiae* Rondani, 1875 (Doğanlar, 1985).

Genus *Pachyneuron* Walker, 1833

Pachyneuron Walker, 1833:371, 380. Type species: *Pachyneuron formosum* Walker, 1833, by monotypy.

Pachyneuron ahlaense Mani & Saraswat, 1974

Pachyneuron ahlaense Mani & Saraswat (*in* Mani et al.), 1974:90, Holotype ♀. – SJCA, India.

Distribution in the Middle East: Turkey (Doğanlar, 1986).

Zoogeographical distribution: Oriental, Western Palaearctic.

Pachyneuron aphidis (Bouché, 1834)

Diplolepis aphidis Bouché, 1834:170, ♀♂. – Germany.

Material examined. 7♀♀, Iran: North Khorasan province, Maneh and Semelghan, Qaleh-Khan (37°30'52"N, 56°46'29"E), Malaise trap, 19.07.2018, 2♀♀, Z. Rahmani Leg.; Kermanshah province, Sonqur (34°46'30"N, 47°32'48"E), swept on Weed, 07.06.2013, 2♀♀, Z. Sharifi Leg.; Isfahan province, Najafabad (32°37'59.13"N, 51°21'29.18"E), Malaise trap, 12.06.2014, 3♀♀, E. Nader leg.

Distribution in the Middle East: Algeria (Sadat et al., 2019; Ghelamallah et al., 2020), Egypt (Kolaib, 1991; Gadallah et al., 2014), Iran (Rakhshani et al., 2004; Lotfalizadeh & Gharali, 2008; Mitroiu et al., 2011; Hasani & Madjdzadeh, 2012; Moravvej et al., 2018; Rahmani et al., 2021; Shojaey et al., 2021; current study), Iraq (OILB, 1971; Bandyar et al., 2021), Israel (Rosen, 1967; Gonzalez et al., 1978), Jordan (Tselikh, 2020), Libya (Lal & Naji, 1979a, 1979b), Morocco (Delucchi, 1962a; Vago, 2002), Syria (Vidal, 1997), Turkey (Western part – Öncüer, 1991; Eastern part – Alaoğlu, 1994), Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Israel (Rosen, 1967) and Morocco (Delucchi, 1962a) as *Pachyneuron minutissimum* (Förster, 1841).

Pachyneuron bonum Xu & Li, 1991

Pachyneuron bonum Xu & Li (*in* Xu et al.), 1991:73, ♀. – China.

Distribution in the Middle East: Iran (Talebi et al., 2008).

Zoogeographical distribution: Eastern and Western (Talebi et al., 2008) Palaearctic.

***Pachyneuron coccorum* (Linnaeus, 1758)**

Ichneumon coccorum Linnaeus, 1758:567. – Sweden.

Distribution in the Middle East: Israel (Narendran et al., 2007), Morocco (Herting, 1973), Palestine (Klein & Perzelan, 1940; Rivnay, 1944).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Pachyneuron crassiculme* Waterston, 1922**

Pachyneuron crassiculme Waterston, 1922:51, Holotype ♀. – NHMUK, Iraq.

Distribution in the Middle East: Iraq (Waterston, 1922), Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical, Eastern and Western Palaearctic.

***Pachyneuron danium* Narendran, 2007**

Pachyneuron danium Narendran (in Narendran et al.), 2007:121,129, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical.

***Pachyneuron erzurumicum* Doğanlar, 1986**

Pachyneuron erzurumicum Doğanlar, 1986:28–30, ♀♂, Holotype ♀. – CUTT, Turkey.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; Mitroiu et al., 2011; Hasani & Madjdzadeh, 2012; Rahmani et al., 2021), Turkey (Eastern part – Doğanlar, 1986).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Pachyneuron fomium* Narendran & Abhilash, 2007**

Pachyneuron fomium Narendran & Abhilash (in Narendran et al.), 2007:125, ♀♂, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical.

***Pachyneuron formosum* Walker, 1833**

Pachyneuron formosum Walker, 1833:380, Lectotype ♀♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; Dehdar & Madjdzadeh, 2016; Rahmani et al., 2021), Morocco (Vago, 2002), Turkey (Eastern and Western part – Öncüer, 1991; Western part – Tek & Okyar, 2018).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

***Pachyneuron gibbiscuta* Thomson, 1878**

Pachyneuron gibbiscuta Thomson, 1878:29, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Shojaey et al., 2021), Turkey (Doğanlar, 1986).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

***Pachyneuron grande* Thomson, 1878**

Pachyneuron grande Thomson, 1878:29, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Sadeghi & Ebrahimi, 2001; Rahmani et al., 2021), Turkey (Central part – Muştu et al., 2011).

Zoogeographical distribution: Eastern and Western Palaearctic.

Pachyneuron groenlandicum (Holmgren, 1872)

Pteromalus groenlandicus Holmgren, 1872:100, Lectotype ♀. – NHRS, Greenland.

Distribution in the Middle East: Algeria (Djouama et al., 2018), Iran (Haeselbarth, 1983; Lotfalizadeh & Gharali, 2008; Mitroiu et al., 2011; Hasani & Madjdzadeh, 2012; Rahmani et al., 2021), Morocco (Benyahia, 2016), Turkey (Doğanlar, 1986), Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Nearctic, Oriental, Western Palaearctic.

Pachyneuron leucopiscida Mani, 1939

Pachyneuron leucopiscida Mani, 1939:86, ♀♂, Holotype ♀. – INPC, India.

Distribution in the Middle East: Iran (Dehdar & Madjdzadeh, 2013, 2016; Shojaey et al., 2021), Israel (Wool & Burstein, 1991), Turkey (Eastern part – Öncüer, 1991; Doğanlar, 1986), Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Israel as *Pachyneuron ?leucopiscida* Mani, 1939 (Wool & Burstein, 1991) and from Turkey as *Pachyneuron cremifanie* Delucchi (Öncüer, 1991).

Pachyneuron muscarum (Linnaeus, 1758)

Ichneumon muscarum Linnaeus, 1758:567. – Sweden.

Material examined. 3♀♀, Iran, Sistan-o Baluchestan province, Zabol (31°06'02" N, 61°25'07" E), swept on Weed, 3.05.2015, H.A. Derafshan Leg.

Distribution in the Middle East: Egypt (El-Serwy, 2001), Iran (Lotfalizadeh & Ahmadi, 2000; Fallahzadeh et al., 2011; Ebrahimi, 2014; Jalilvand et al., 2014; Rahmani et al., 2021; current study), Iraq (Hassan, 2021), Israel (Rosen, 1962; Rosen et al., 1971; Ben-Dov, 1972; Mendel et al., 1984), Morocco (Kissayi et al., 2021), Saudi Arabia (OILB, 1971), Syria (Diab et al., 2014), Turkey (Eastern part – Öncüer, 1991; Central part – Kaydan et al., 2006; Western part – Tek & Okyar, 2018).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Neotropical, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Iran as *Pachyneuron concolor* (Förster, 1841) (Lotfalizadeh & Ahmadi, 2000), from Israel as *Pachyneuron siculum* Delucchi, 1955 (Rosen, 1962; Rosen et al., 1971; Ben-Dov, 1972) and as *Pachyneuron concolor* (Förster, 1841) from Israel (Mendel et al., 1984), and Turkey (Öncüer, 1991; Kaydan et al., 2006).

Pachyneuron nelsoni Girault, 1928

Pachyneuron nelsoni Girault, 1928:2, Holotype ♀. – QM, Australia.

Material examined. 2♀♀, Iran, Sistan-o Baluchestan province, Zabol (31°06'02" N, 61°25'07" E), swept on Weed, 13.05.2015, H.A. Derafshan Leg.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; Hasani & Madjdzadeh, 2012; Rahmani et al., 2021; Shojaey et al., 2021; current study), Kuwait (Al-Houty, 2011), Libya (Masi, 1929), Turkey (Graham, 1969), Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical, Australasian, Eastern and Western Palaearctic, and Oriental.

Remarks: This species has been recorded as *Pachyneuron aeneum* Masi, 1929 from Kuwait (Al-Houty, 2011) and from Turkey (Graham, 1969; Öncüer, 1991), and as *Pachyneuron aeneus* Masi, 1929 from Libya (Masi, 1929).

***Pachyneuron neosolitarium* Narendran, 2007**

Pachyneuron neosolitarium Narendran (in Narendran et al.), 2007:122, ♀♂, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical.

***Pachyneuron planiscuta* Thomson, 1878**

Pachyneuron planiscuta Thomson, 1878:29, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Modarres Awal, 2012).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Pachyneuron remosum* Narendran & Sheeba, 2007**

Pachyneuron remosum Narendran & Sheeba (in Narendran et al.), 2007:126, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical.

***Pachyneuron solitarium* (Hartig, 1838)**

Chrysolampus solitarius Hartig, 1838:250, Lectotype ♀. – Germany.

Distribution in the Middle East: Iran (Ghafouri-Moghaddam et al., 2014; Ghajarieh et al., 2014), Turkey (Western part – Yayla et al., 1995).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Pachyneuron solitarium* (Hartig) (Yayla et al., 1995).

***Pachyneuron stom* Narendran & Jilcy, 2007**

Pachyneuron stom Narendran & Jilcy (in Narendran et al.), 2007:128, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical.

***Pachyneuron tonyi* Narendran & Santhosh, 2007**

Pachyneuron tonyi Narendran & Santhosh (in Narendran et al.), 2007:123, ♀♂, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Iran (Moravvej et al., 2018), Yemen (Narendran et al., 2007).

Zoogeographical distribution: Afrotropical, Western Palaearctic (Moravvej et al., 2018).

***Pachyneuron* sp.**

Distribution in the Middle East: Morocco (Mouna, 2013).

Genus *Panstenon* Walker, 1846

Panstenon Walker, 1846:29. Type species: *Miscogaster oxylus* Walker, 1839, by monotypy.

***Panstenon oxylus* (Walker, 1839)**

Miscogaster oxylus Walker, 1839:196, ♀♂, Lectotype. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Bahri-Motlagh et al., 2012c).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

Genus *Paradinarmus* Masi, 1929

Paradinarmus Masi, 1929:226. Type species: *Paradinarmus tridentatus* Masi, 1929, by monotypy.

***Paradinarmus tridentatus* Masi, 1929**

Paradinarmus tridentatus Masi, 1929:227, ♀. – Libya.

Distribution in the Middle East: Libya (Masi, 1929).

Zoogeographical distribution: Western Palaearctic.

Genus *Peridesmia* Förster, 1856

Peridesmia Förster, 1856:65. Type species: *Isocyrtus aquisgranensis* Mayr, 1903. Designation by Gahan, 1923.

***Peridesmia discus* (Walker, 1835)**

Pteromalus discus Walker, 1835:482, ♀. – United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; Shojaey et al., 2021), Morocco (Delucchi, 1962b; Bouček, 1966).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Peridesmia phytonomi* Gahan, 1923 (Delucchi, 1962b).

Genus *Platneptis* Bouček, 1961

Platneptis Bouček, 1961:84. Type species: *Platneptis maceki* Bouček, 1961, original designation and monotypy.

***Platneptis laeta* (Walker, 1848)**

Pteromalus laeta Walker, 1848:199, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

Genus *Plutothrix* Förster, 1856

Plutothrix Förster, 1856:46. Type species: *Plutothrix foersteri* Mayr, 1856, by subsequent monotypy.

Diagnosis: Anterior clypeal margin with angular median tooth; tentorial pits shallow. Prepectus triangular, bare and shiny, with distinct vertical carina. Notauli deep and distinct. Scutellum with distinct frenal area. Fore wing with a moderately speculum (Bouček & Rasplus, 1991).

***Plutothrix trifasciata* (Thomson, 1878)**

Trigonoderus trifasciatus Thomson, 1878:11, Lectotype ♀. – MZLU, Sweden.

Material examined. Iran, Kermanshah, Dodan (35°00'44"N, 46°12'27"E), Malaise trap, 05.06.2016, 1♀, M. Zardooei Heydari leg.

Diagnosis. Female. Body length 4.5 mm. Head in frontal view 1.4 times wider than high. Antenna with scape reaching lower edge of median ocellus (Fig. 3A). Toruli inserted above lower margins of eyes (Fig. 3A). Width of head 2 times its length in dorsal view. POL 1.15 times longer than OOL (Fig. 3B). Eye

height 1.38 times longer than its length in lateral view. Dorsellum smooth (Fig. 3C). Propodeum shallow reticulate, median carina complete (Fig. 3D). Fore wing with three fascia; basal cell with one continuous row of setae, basal fold pilose; marginal vein 0.68 times postmarginal vein and 1.8 times longer than stigmal vein (Fig. 3E). Gaster 3.6 times longer than wide, posterior margin of first tergite deeply emarginate. Body dark metallic green with bronze–copper reflection (Fig. 3F).

Distribution in the Middle East: Iran (New record).

Zoogeographical distribution: Eastern and Western Palaearctic.

Plutothrix sp.

Distribution in the Middle East: Morocco (Kissayi et al., 2021).

Genus *Pseudocatolaccus* Masi, 1908

Pseudocatolaccus Masi, 1908:138. Type species: *Pseudocatolaccus asphondyliae* Masi, 1908, by monotypy.

Pseudocatolaccus aragonensis Askew, 2001

Pseudocatolaccus aragonensis Askew (in Askew et al.), 2001:62–63, ♀♂, Holotype ♀. – MNCN, Spain.

Distribution in the Middle East: Iran (Hasani et al., 2011).

Zoogeographical distribution: Eastern and Western Palaearctic.

Pseudocatolaccus nitescens (Walker, 1834)

Amblymerus nitescens Walker, 1834:347, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008), Morocco (Delucchi, 1962b; Vago, 2002), Turkey (Western part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Pseudocatolaccus euryops* (Föerster, 1841) (Delucchi, 1962b).

Pseudocatolaccus nuperus Narendran, 2011

Pseudocatolaccus nuperus Narendran (in Narendran & Ignatius), 2011:124, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & Ignatius, 2011).

Zoogeographical distribution: Afrotropical.

Genus *Psilocera* Walker, 1833

Psilocera Walker, 1833:373. Type species: *Psilocera obscura* Walker, 1833, by monotypy.

Psilocera obscura Walker, 1833

Psilocera obscura Walker, 1833:373, Lectotype ♂. – NHMUK, United Kingdom.

Material examined. 1♀, Iran, South Khorasan province, Bandan (31°23'26"N, 60°43'32"E), swept on Weed, 28.06.2021, F. Minab, Leg.

Distribution in the Middle East: Iran (Rahmani et al., 2020c), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Psilocera atra* (Walker, 1834) (Doğanlar, 1985).

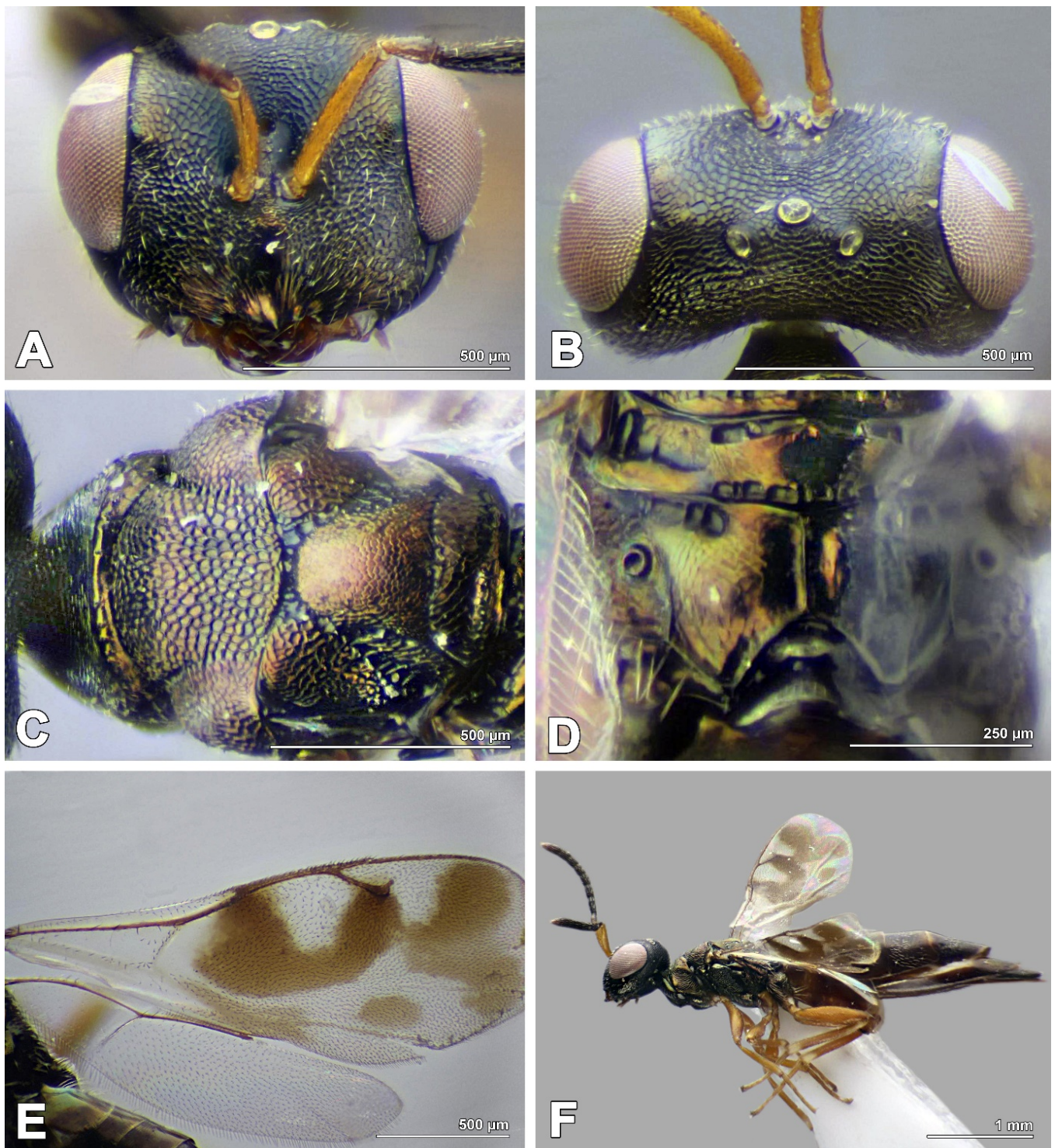


Figure 3. *Plutothrix trifasciata* (Thomson, 1878), Female. **A.** Head in frontal view; **B.** Head in dorsal view; **C.** Mesonotum in dorsal view, **D.** Propodeum in dorsal view; **E.** Fore wing venation; **F.** General habitus in lateral view.

Genus *Psilonotus* Walker, 1834

Psilonotus Walker, 1834:168, 179. Type species: *Psilonotus adamas* Walker, 1834, by monotypy.

***Psilonotus achaeus* Walker, 1848**

Psilonotus achaeus Walker, 1848:105, 161, ♀. – United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palearctic, Nearctic, Western Palearctic.

***Psilonotus adamas* Walker, 1834**

Psilonotus adamas Walker, 1834:179, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palearctic.

***Psilonotus hortensia* Walker, 1846**

Psilonotus hortensia Walker, 1846:113, ♀♂. – NMID, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palearctic.

Genus *Psychophagus* Mayr, 1904

Psychophagus Mayr, 1904 (*Diglochis* Thomson, 1878):598. Type species: *Pteromalus omnivorus* Walker, 1835, by monotypy.

***Psychophagus omnivorus* (Walker, 1835)**

Pteromalus omnivorus Walker, 1835:204, Lectotype ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Rezaei et al., 2003), Turkey (Eastern part – Doğanlar, 1982, 1985; Central part – Sullivan et al., 2011).

Zoogeographical distribution: Nearctic, Western Palearctic.

Genus *Pteromalus* Swederus, 1795

Pteromalus Swederus, 1795:201. Type species: *Ichneumon puparum* Linnaeus, 1758. Designated by Westwood, 1839.

***Pteromalus albipennis* Walker, 1835**

Pteromalus albipennis Walker, 1835:198, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2014; Pourhaji et al., 2020), Israel (Tselikh, 2020), Turkey (Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palearctic.

***Pteromalus apum* (Retzius, 1783)**

Ichneumon apum Retzius, 1783:69.

Distribution in the Middle East: Iran (Gibson et al., 2021), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palearctic, Nearctic, Neotropical, Western Palearctic.

***Pteromalus atamia* Narendran & van Harten, 2007**

Pteromalus atamia Narendran & van Harten, 2007:118–119, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2007b).

Zoogeographical distribution: Afrotropical.

***Pteromalus bedeguaris* (Thomson, 1878)**

Etroxys (*Habrocytus*) *bedeguaris* Thomson, 1878:123, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Rakhshani et al., 2003; Askew et al., 2006; Nazemi-Rafie et al., 2007; Lotfalizadeh & Gharali, 2008; Daneshvar et al., 2009; Mahdavi et al., 2015), Turkey (Eastern part – Özbek et al., 1999; Central part – Gençer, 2003; Western part – Mete et al., 2018).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Pteromalus bifoveolatus* Förster, 1861**

Pteromalus bifoveolatus Förster, 1861:36, ♂. – Switzerland.

Distribution in the Middle East: Iran (Heidari et al., 2004; Karimpour & Hydone, 2005; Karimpour, 2018), Morocco (Thompson, 1958), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Afrotropical, Eastern and Western Palaearctic.

***Pteromalus cardui* (Erdős, 1953)**

Cecidostiba cardui Erdős, 1953:230, Lectotype ♀. – HNHM, Hungary.

Distribution in the Middle East: Iran (Modarres Awal, 2012).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Pteromalus cerealellae* (Ashmead, 1902)**

Catolaccus cerealellae Ashmead, 1902:345. – USNM, USA.

Distribution in the Middle East: Syria (Bilaf et al., 2011).

Zoogeographical distribution: Nearctic, Neotropical, Western Palaearctic.

***Pteromalus chlorospilus* (Walker, 1834)**

Eutelus chlorospilus Walker, 1834:368, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Hashemi, 2015).

Zoogeographical distribution: Western Palaearctic.

***Pteromalus chrysos* Walker, 1836**

Pteromalus chrysos Walker, 1836:491, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Algeria (Panis & Demolin, 1975), Iran (Gibson et al., 2021), Morocco (Thompson, 1958; Mouna, 2013), Turkey (Eastern part – Doğanlar, 1985; Western part – Tek & Okyar, 2018).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Pteromalus cionobius* (Erdős, 1953)**

Cecidostiba cionobia Erdős, 1953:228, Lectotype ♀. – HNHM, Hungary.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

***Pteromalus cyniphidis* (Linnaeus, 1758)**

Ichneumon cyniphidis Linnaeus, 1758:567, ♂. – MZH, Finland.

Distribution in the Middle East: Iran (Mahdavi et al., 2015).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Pteromalus delvarei* Vago, 2002**

Pteromalus delvarei Vago, 2002:102–104, ♀♂, Holotype ♀. – CIRA, Morocco.

Distribution in the Middle East: Morocco (Vago, 2002).

Zoogeographical distribution: Western Palaearctic.

***Pteromalus dolichurus* (Thomson, 1878)**

Etroxys (Habrocytus) dolichurus Thomson, 1878:119, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Mahdavi et al., 2015).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Pteromalus doumeti* Fairmaire, 1879**

Pteromalus doumeti Fairmaire, 1879:207. – Tunisia.

Distribution in the Middle East: Tunisia (Fairmaire, 1879).

Zoogeographical distribution: Western Palaearctic.

***Pteromalus elevatus* (Walker, 1834)**

Eutelus elevatus Walker, 1834:366, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Modarres Awal., 2012), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oceanic, Western Palaearctic.

***Pteromalus intermedius* (Walker, 1834)**

Eutelus intermedius Walker, 1834:366, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Pteromalus lixi* (Sarra, 1924)**

Habrocytus lixi Sarra, 1924:143, ♀♂. – Italy.

Distribution in the Middle East: Morocco (Herting, 1973), Tunisia (Boukhris–Bouhachem et al., 2016).

Zoogeographical distribution: Western Palaearctic.

***Pteromalus microps* (Graham, 1969)**

Habrocytus microps Graham, 1969:556–558, ♀♂, Holotype ♀. – NHMUK, Ireland (Eire).

Distribution in the Middle East: Iran (Modarres Awal., 2012).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Pteromalus platyphilus* Walker, 1874**

Pteromalus platyphilus Walker, 1874:317, Lectotype ♀. – NHMUK, Russia.

Distribution in the Middle East: Morocco (Baur, 2015b), Oman (Gibson, 2013), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Afrotropical (Gibson, 2013), Eastern and Western Palaearctic.

***Pteromalus puparum* (Linnaeus, 1758)**

Ichneumon puparum Linnaeus, 1758:567.

Distribution in the Middle East: Algeria (Thompson, 1958), Egypt (Abbas & El-Dakroury, 1985; Gadallah et al., 2014), Iran (Davatchi & Shojai, 1968; Farid, 1987; Modarres Awal, 2012), Iraq (Herting, 1976), Israel (Kugler, 1966), Morocco (Stefanescu et al., 2012), Saudi Arabia (Abu-Yaman, 1973; Faragalla et al., 1985), Turkey (Eastern part – Doğanlar, 1982, 1985).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palearctic.

***Pteromalus ridens* Vago, 2002**

Pteromalus ridens Vago, 2002:100–102, ♀♂, Holotype ♀. – FUSA, Morocco.

Distribution in the Middle East: Morocco (Vago, 2002).

Zoogeographical distribution: Western Palearctic.

***Pteromalus semotus* (Walker, 1834)**

Eutelus semotus Walker, 1834:367, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Egypt (Kolaib et al., 1980; Gadallah et al., 2014), Iran (Mehrnejad & Basirat, 2009), Morocco (Stefanescu et al., 2012), Syria (Baur, 2005), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Afrotropical, Eastern Palearctic, Neotropical, Oceanic, Oriental, Western Palearctic.

Remarks: This species has been recorded from Egypt as *Habrocytus semotus* (Walker, 1834) (Kolaib et al., 1980).

***Pteromalus sequester* Walker, 1835**

Pteromalus sequester Walker, 1835:495, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Egypt (Tawfik et al., 1976; Gadallah et al., 2014), Iran (Mohammadi-Khoramabadi et al., 2014; Lotfalizadeh & Hashemi, 2015), Iraq (Abdul-Rassoul, 1990), Israel (Herting, 1973), Turkey (Eastern part – Doğanlar, 1985; Gözüaçik & Simsek, 2015).

Zoogeographical distribution: Australasian, Eastern Palearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palearctic.

Remarks: This species has been recorded from Egypt (Tawfik et al., 1976) and from Iraq (Abdul-Rassoul, 1990) as *Habrocytus sequester* (Walker, 1835).

***Pteromalus varians* (Spinola, 1808)**

Diplolepis varians Spinola, 1808:216–217, ♀♂. – Italy.

Distribution in the Middle East: Iran (Modarres Awal., 2012).

Zoogeographical distribution: Eastern and Western Palearctic.

Remarks: This species has been recorded from Iran as *Habrocytus grandis* (Walker, 1835) (Modarres Awal., 2012).

***Pteromalus veneris* Dalla Torre, 1898**

Pteromalus veneris Dalla Torre, 1898:153. – Germany.

Distribution in the Middle East: Iran (Mirabzadeh, 1989).

Zoogeographical distribution: Western Palaearctic.

***Pteromalus vibulenus* (Walker, 1839)**

Ormocerus vibulenus Walker, 1839:205, Lectotype ♂. – NHMUK, Ireland.

Distribution in the Middle East: Morocco (Mouna, 2013).

Zoogeographical distribution: Western Palaearctic.

Genus *Rhaphitelus* Walker, 1834

Rhaphitelus Walker, 1834:168, 178. Type species: *Rhaphitelus maculatus* Walker, 1834, by monotypy.

***Rhaphitelus ladenbergii* (Ratzeburg, 1844)**

Styloceras ladenbergii Ratzeburg, 1844:208, ♀♂. – Germany.

Distribution in the Middle East: Turkey (Eastern part – Özgen, 2019).

Zoogeographical distribution: Western Palaearctic.

***Rhaphitelus maculatus* Walker, 1834**

Rhaphitelus maculatus Walker, 1834:179, Holotype ♀. – NHMUK, United Kingdom.

Material examined. 4♀♀, Iran, Isfahan province, Najafabad (32°37'59.13"N, 51°21'29.18"E), Malaise trap, 11.05.2013, E. Nader leg.

Distribution in the Middle East: Egypt (Ismail et al., 1988), Iran (Davatchi & Shojai, 1968; Lotfalizadeh & Gharali, 2008; Rahmani et al., 2021; current study), Israel (Mendel, 1986), Morocco (Benazoun, 1988), Tunisia (Arambourg, 1964; Zeiri et al., 2013, 2015), Turkey (Western part – Tuatay et al., 1972).

Zoogeographical distribution: Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Genus *Rhopalicus* Förster, 1856

Rhopalicus Förster, 1856:66. Type species: *Cleonymus maculifer* Förster, 1841, by monotypy.

***Rhopalicus guttatus* (Ratzeburg, 1844)**

Ichneumon (*Pteromalus*) *guttatus* Ratzeburg, 1844:29, ♀. – Germany.

Distribution in the Middle East: Turkey (Garrido Torres & Nieves-Aldrey, 1999).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Rhopalicus quadratus* (Ratzeburg, 1844)**

Pteromalus quadratus Ratzeburg, 1844:203, ♀. – Germany.

Distribution in the Middle East: Iran (Gibson et al., 2021).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Rhopalicus tutela* (Walker, 1836)**

Cheiopachus tutela Walker, 1836: 14, ♀♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Turkey (Eastern part – Schimitschek, 1940; Central and Eastern part – Öncüer, 1991; Eastern part – Ünal, 2010).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oceanic, Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Rhopalium tutela* (Walker, 1836) (Öncüer, 1991) and as *Rhopalicus suspensus* (Ratzeburg, 1844) (Schimitschek, 1940; Ünal, 2010).

Genus *Roptrocerus* Ratzeburg, 1848

Roptrocerus Ratzeburg, 1848:209. Type species: *Pachyceras xylophagorum* Ratzeburg, 1844. Designation by Ashmead, 1904.

Roptrocerus brevicornis Thomson, 1878

Roptrocerus brevicornis Thomson, 1878:85, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Morocco (Kissayi et al., 2021), Turkey (Eastern part – Ünal, 2010).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Morocco as *Roptrocerus* aff. *brevicornis* Thomson, 1878 (Kissayi et al., 2021).

Roptrocerus xylophagorum (Ratzeburg, 1844)

Pachyceras xylophagorum Ratzeburg, 1844:218, ♀. – Germany.

Distribution in the Middle East: Israel (Mendel, 1986), Morocco (Kissayi et al., 2021), Turkey (Central and Eastern part – Öncüer, 1991).

Zoogeographical distribution: Australasian, Eastern and Western Palaearctic, Nearctic, Neotropical, Oriental.

Remarks: This species has been recorded from Turkey as *Rhaptocera xylophagorum* (Ratzeburg, 1844) (Öncüer, 1991).

Genus *Schizonotus* Ratzeburg, 1852

Pteromalus (*Schizonotus* Ratzeburg, 1852):230. Type species: *Pteromalus sieboldi* Ratzeburg, 1848. Designation by Ashmead, 1904.

Schizonotus latus (Walker, 1835)

Pteromalus latus Walker, 1835:481, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Schizonotus sieboldi (Ratzeburg, 1848)

Pteromalus sieboldi Ratzeburg, 1848:230, ♀. – SDEI, Germany.

Distribution in the Middle East: Iran (Lotfalizadeh & Ahmadi, 1998; Lotfalizadeh & Gharali, 2008), Turkey (Central part – Zeki & Toros, 1990).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Genus *Spaniopus* Walker, 1833

Spaniopus Walker, 1833:466. Type species: *Spaniopus dissimilis* Walker, 1833, by monotypy.

Spaniopus dissimilis Walker, 1833

Spaniopus dissimilis Walker, 1833:466, ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008).

Zoogeographical distribution: Nearctic, Western Palaearctic.

***Spaniopus polyspilus* Graham, 1956**

Spaniopus polyspilus Graham, 1956:251, Holotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008).

Zoogeographical distribution: Western Palaearctic.

Genus *Sphegigaster* Spinola, 1811

Sphegigaster Spinola, 1811:149. Type species: *Diplolepis pallicornis* Spinola, 1808. Designation by Ashmead, 1904.

***Sphegigaster agromyzae* (Dodd, 1917)**

Trigonogastra agromyzae Dodd, 1917:347. – Australia.

Distribution in the Middle East: Egypt (Herting, 1978; Gadallah et al., 2014).

Zoogeographical distribution: Australasian, Oriental, Western Palaearctic.

***Sphegigaster brevicornis* (Walker, 1833)**

Dicyclus brevicornis Walker, 1833:456, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

***Sphegigaster cuscatae* Ferrière, 1959**

Sphegigaster cuscatae Ferrière, 1959:98, ♀♂. – Germany.

Distribution in the Middle East: Iran (Hasani et al., 2011), Morocco (Klein, 1995), Yemen (Narendran & van Harten, 2007a).

Zoogeographical distribution: Afrotropical, Eastern and Western Palaearctic.

***Sphegigaster diasi* Narendran & van Harten, 2007**

Sphegigaster diasi Narendran & van Harten, 2007:83, ♀♂, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2007a).

Zoogeographical distribution: Afrotropical.

***Sphegigaster ineus* Mitroiu, 2008**

Sphegigaster ineus Mitroiu, 2008:65, Holotype ♀. – MGAB, Romania.

Distribution in the Middle East: Iran (Lotfalizadeh et al., 2015; Shojaey et al., 2021).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Sphegigaster mutica* Thomson, 1878**

Sphegigaster muticus Thomson, 1878:22, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Dehdar & Madjdzadeh, 2016).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Sphegigaster nigricornis* (Nees, 1834)**

Chrysolampus nigricornis Nees, 1834:133, Lectotype ♀. – HDU, Germany.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; Shojaey et al., 2021).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Sphigigaster orobanchiae* Kurdjumov, 1912**

Sphigigaster orobanchiae Kurdjumov, 1912:233, ♀♂. – Russia.

Distribution in the Middle East: Iran (OILB, 1971; Modarres Awal, 1997), Iraq (Al Azawi, 1971; Mekhlif & Abdul-Rassoul, 2002), Turkey (Eastern part – Çikman & Doğanlar, 2006).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Iraq as *Sphigigaster* nr. *orobanchiae* (Mekhlif & Abdul-Rassoul, 2002).

***Sphigigaster pallicornis* (Spinola, 1808)**

Diplolepis pallicornis Spinola, 1808:227, ♂. – Italy.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 1985).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Sphigigaster pedunculiventris* (Spinola, 1808)**

Diplolepis pedunculiventris Spinola, 1808:225. – Italy.

Distribution in the Middle East: Iran (Shojaey et al., 2021), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Sphigigaster aculeata* (Walker, 1833) (Doğanlar, 1985).

***Sphigigaster persiana* Mitroiu & Madjdzadeh, 2011**

Sphigigaster persiana Mitroiu & Madjdzadeh (in Mitroiu et al.), 2011:246, Holotype ♀. – MICO, Iran.

Distribution in the Middle East: Iran (Mitroiu et al., 2011).

Zoogeographical distribution: Eastern Palaearctic.

***Sphigigaster scutaecus* Narendran & van Harten, 2007**

Sphigigaster scutaecus Narendran & van Harten, 2007:80, ♀♂, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2007a).

Zoogeographical distribution: Afrotropical.

***Sphigigaster stepicola* Bouček, 1965**

Sphigigaster stepicola Bouček, 1965: 12, ♀♂, Holotype ♀. – NMPC, Czechoslovakia.

Distribution in the Middle East: Algeria (Bouček, 1965; Djouama et al., 2018), Iran (Modarres Awal, 2012), Morocco (Vago, 2002).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Oriental, Western Palaearctic.

***Sphigigaster trioni* Narendran & van Harten, 2007**

Sphigigaster trioni Narendran & van Harten, 2007:85, Holotype ♀. – DZUC, Yemen.

Distribution in the Middle East: Yemen (Narendran & van Harten, 2007a).

Zoogeographical distribution: Afrotropical.

***Sphegigaster truncata* Thomson, 1878**

Sphegigaster truncata Thomson, 1878:21, Lectotype ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Mitroiu et al., 2011).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Spintherus* Thomson, 1878

Etroxys (*Spintherus* Thomson, 1878):129. Type species: *Etroxys obscurus* Thomson, 1878, by monotypy.

***Spintherus dubius* (Nees, 1834)**

Pteromalus dubius Nees, 1834:99, ♀♂. – Germany.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Stenetra* Masi, 1931

Stenetra Masi, 1931:170. Type species: *Stenetra ligustica* Masi, 1931, by monotypy.

***Stenetra khalaimi* Tselikh, 2020**

Stenetra khalaimi Tselikh (*in* Tselikh & Burks), 2020:201, Holotype ♀. – Israel.

Distribution in the Middle East: Israel (Tselikh & Burks, 2020).

Zoogeographical distribution: Western Palaearctic.

***Stenetra ligustica* Masi, 1931**

Stenetra ligustica Masi, 1931:170, Holotype ♀. – Italy.

Distribution in the Middle East: Iran (Gibson et al., 2021), Turkey (Central part – Tselikh & Burks, 2020).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Stenetra* sp.**

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008).

Genus *Stenomalina* Ghesquière, 1946

Stenomalina Ghesquière, 1946:370. Type species: *Etroxys crassicornis* Thomson, 1878. Designation by Ashmead, 1904.

***Stenomalina communis* (Nees, 1834)**

Pteromalus communis Nees, 1834:103. – Germany.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Stenomalina continua* (Walker, 1836) (Doğanlar, 1985).

***Stenomalina delvarei* Lotfalizadeh & Rasplus, 2020**

Stenomalina delvarei Lotfalizadeh & Rasplus (*in* Lotfalizadeh et al.), 2020:23, ♀♂, Holotype ♀. – Iran.

Distribution in the Middle East: Iran (Lotfalizadeh et al., 2020).

Zoogeographical distribution: Western Palaearctic.

***Stenomalina favorinus* (Walker, 1839)**

Pteromalus favorinus Walker, 1839:263, Holotype ♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

***Stenomalina gracilis* (Walker, 1834)**

Eutelus gracilis Walker, 1834:365, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Morocco (Vago, 2002).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Stenomalina iera* (Walker, 1844)**

Pteromalus iera Walker, 1844:339, Lectotype ♀. – NHMUK, Norway.

Material examined. 1♀, Iran: North Khorasan province, Maneh and Semelghan, Qaleh-Khan (37°30'49"N, 56°46'10"E), swept on Weed, 14.08.2018, Z. Rahmani Leg.

Distribution in the Middle East: Iran (Hasani & Madjdzadeh, 2012).

Zoogeographical distribution: Eastern (Hasani & Madjdzadeh, 2012, current study) and Western Palaearctic.

***Stenomalina laticeps* (Walker, 1850)**

Pteromalus laticeps Walker, 1850:128, Lectotype ♀. – NHMUK, Germany.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Stenoselma* Delucchi, 1956

Stenoselma Delucchi, 1956:65. Type species: *Stenoselma nigrum* Delucchi, 1956, original designation and monotypy.

***Stenoselma nigrum* Delucchi, 1956**

Stenoselma nigrum Delucchi, 1956:66, ♀♂, Holotype ♀. – ETHZ, Italy.

Distribution in the Middle East: Iran (Nazemi Rafie et al., 2011; Dehdar & Madjdzadeh, 2013; Shojaey et al., 2021), Morocco (Delucchi, 1962a; Vago, 2002).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Stinoplus* Thomson, 1878

Etroxys (*Stinoplus* Thomson, 1878):107. Type species: *Etroxys militaris* Thomson, 1878. Designated by Ashmead, 1904.

***Stinoplus etearchus* (Walker, 1848)**

Pteromalus etearchus Walker, 1848:126, 205, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Rahmani et al., 2020c), Morocco (Vago, 2002).

Zoogeographical distribution: Australasian, Eastern Palaearctic, Oceanic, Western Palaearctic.

Genus *Syntomopus* Walker, 1833

Syntomopus Walker, 1833:371, 372. Type species: *Syntomopus thoracicus* Walker, 1833. Designation by Westwood, 1839.

Syntomopus incisus Thomson, 1878

Syntomopus incisus Thomson, 1878:23, Lectotype ♀. – MZLU, Sweden.

Material examined. 1♀, Iran: North Khorasan province, Maneh and Semelghan, Havar (37°25'07.31" N, 56°49'23.73"E), swept on Weed, 02.07.2018, Z. Rahmani Leg.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008, current study), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Syntomopus incurvus Walker, 1833

Syntomopus incurvus Walker, 1833:372, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Rahmani et al., 2021), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Syntomopus thoracicus Walker, 1833

Syntomopus thoracicus Walker, 1833:372, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Morocco (Delucchi, 1962a).

Zoogeographical distribution: Eastern Palaearctic, Oriental, Western Palaearctic.

Genus *Thureonella* Gijswijt, 1990

Thureonella Gijswijt, 1990:42–43. Type species: *Thureonella punctata* Gijswijt, 1990, original designation and monotypy.

Thureonella sp.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008).

Genus *Tomicobia* Ashmead, 1899

Tomicobia Ashmead, 1899:203. Type species: *Tomicobia tibialis* Ashmead, 1904, by subsequent monotypy.

Tomicobia promulus (Walker, 1840)

Pteromalus promulus Walker, 1840:232, Lectotype ♀. – NMS, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

Genus *Toxeumorpha* Girault, 1915

Toxeumorpha Girault, 1915:195. Type species: *Toxeumorpha nigra* Girault, 1915, original designation and monotypy.

Toxeumorpha nigricola (Ferrière, 1936)

Trigonogastra nigricola Ferrière, 1936:479, Lectotype ♀. – NHMUK, Tanzania.

Distribution in the Middle East: Morocco (Bouček & Rasplus, 1991).

Zoogeographical distribution: Afrotropical, Western Palaearctic.

Genus *Trichomalopsis* Crawford, 1913

Trichomalopsis Crawford, 1913:251. Type species: *Trichomalopsis shirakii* Crawford, 1913, original designation and monotypy.

Trichomalopsis hemiptera (Walker, 1835)

Pteromalus hemipterus Walker, 1835:196, ♀♂. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Morocco (Herting, 1975), Turkey (central part – Öncüer, 1991).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Eupteromalus hemipterus* (Walker, 1835) (Öncüer, 1991).

Trichomalopsis littoralis (Graham, 1969)

Eupteromalus littoralis Graham, 1969:755, Holotype ♀. – HDOU, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

Trichomalopsis microptera (Lindeman, 1887)

Merisus intermedius var. *microptera* Lindeman, 1887:182, ♀♂. – USSR.

Distribution in the Middle East: Morocco (Herting, 1978).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Trichomalopsis peregrina (Graham, 1969)

Eupteromalus peregrinus Graham, 1969:764–766, ♀♂, Holotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Modarres Awal., 2012), Turkey (Western part – Tuatay et al., 1972).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Genus *Trichomalus* Thomson, 1878

Isocyrtus (*Trichomalus* Thomson, 1878):134. Type species: *Isocyrtus punctinucha* Thomson, 1878. Designation by Ashmead 1904.

Trichomalus apertus (Walker, 1835)

Pteromalus apertus Walker, 1835:489, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

Trichomalus bracteatus (Walker, 1835)

Pteromalus bracteatus Walker, 1835:483, Lectotype ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Morocco (Delucchi, 1962b).

Zoogeographical distribution: Western Palaearctic.

***Trichomalus campestris* (Walker, 1834)**

Amblymerus campestris Walker, 1834:343, Lectotype ♀. – NHMUK, United Kingdom.

Material examined. 4♀♀, Iran: North Khorasan province, Maneh and Semelghan, Qaleh-Khan (37°30'49"N, 56°46'10"E), swept on Weed, 27.01.2017, 2♀♀, Z. Rahmani Leg.; Kermanshah province, Sonqur (34°46'30"N, 47°32'48"E), swept on Weed, 11.08.2013, 2♀♀, Z. Sharifi Leg.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008; current study), Israel (OILB, 1971), Morocco (Delucchi, 1962b), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

***Trichomalus elongatus* Delucchi & Graham, 1956**

Trichomalus elongatus Delucchi & Graham, 1956:559, Holotype ♀. – NHMW, Austria.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Trichomalus fulvipes* (Walker, 1836)**

Pteromalus fulvipes Walker, 1836:490, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Israel (OILB, 1971), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

***Trichomalus gynetelus* (Walker, 1835)**

Pteromalus gynetelus Walker, 1835:483, Lectotype ♀. –NHMUK, United Kingdom.

Distribution in the Middle East: Morocco (Delucchi, 1962b).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Trichomalus helvipes* (Walker, 1834)**

Eutelus helvipes Walker, 1834:365, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Western Palaearctic.

***Trichomalus nanus* (Walker, 1836)**

Pteromalus nanus Walker, 1836:472, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Trichomalus posticus* (Walker, 1834)**

Eutelus posticus Walker, 1834:366, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Trichomalus rufinus* (Walker, 1835)**

Pteromalus rufinus Walker, 1835:495, ♀. – NHMUK, United Kingdom.

Distribution in the Middle East: Iran (Lotfalizadeh & Gharali, 2008), Turkey (Eastern part – Doğanlar, 1985).

Zoogeographical distribution: Eastern and Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Trichomalus inops* (Walker, 1835) (Doğanlar, 1985).

Trichomalus sufflatus Delucchi, 1962

Trichomalus sufflatus Delucchi, 1962: 19, Holotype ♀. – ETHZ, Morocco.

Distribution in the Middle East: Morocco (Delucchi, 1962b).

Zoogeographical distribution: Western Palaearctic.

Genus *Trjapitzinia* Dzhanokmen, 1975

Trjapitzinia Dzhanokmen, 1975:632. Type species: *Trjapitzinia leucomae* Dzhanokmen, 1975, original designation.

Trjapitzinia leucomae Dzhanokmen, 1975

Trjapitzinia leucomae Dzhanokmen, 1975:633. – Kazakhstan.

Distribution in the Middle East: Turkey (Eastern part – Doğanlar, 1982, 1985; Kiliç & Alaoğlu, 1996).

Zoogeographical distribution: Eastern and Western Palaearctic.

Genus *Trychnosoma* Graham, 1957

Trychnosoma Graham, 1957:140, Type species: *Etoxys punctipleura* Thomson, 1878, original designation and monotypy.

Trychnosoma punctipleura (Thomson, 1878)

Etoxys (*Habrocytus*) *punctipleura* Thomson, 1878:122, ♀. – MZLU, Sweden.

Distribution in the Middle East: Iran (Abolhassanzadeh et al., 2017).

Zoogeographical distribution: Western Palaearctic.

Genus *Urolepis* Walker, 1846

Urolepis Walker, 1846:26, Type species: *Ormocerus maritimus* Walker, 1834, by monotypy.

Urolepis maritima (Walker, 1834)

Ormocerus maritimus Walker, 1834:169, ♀. – NHMUK, United Kingdom.

Material examined. 2♀♀, Iran, North Khorasan province, Maneh and Semelghan, Ghorkhod (37°28'38"N, 56°23'47"E), swept on Weed, 05.06.2018, 1♀, Z. Rahmani leg.; Sistan-o Baluchestan province, Chabahar (25°17'30"N, 60°37'09"E), swept on Weed, 24.05.2014, 1♀, E. Rakhshani Leg.

Distribution in the Middle East: Egypt (Shaumar et al., 1990), Iran (Gibson, 2000; current study), Iraq (OILB, 1971), Israel (Tselikh, 2019).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Subfamily Spalangiinae Haliday, 1833

Genus *Spalangia* Latreille, 1805

Spalangia Latreille, 1805:227–228. Type species: *Spalangia nigra* Latreille, 1805, by monotypy.

***Spalangia afra* Silvestri, 1913**

Spalangia afra Silvestri, 1913:134. – Nigeria.

Distribution in the Middle East: Egypt (Badr-Elsabah & Afia, 2004).

Zoogeographical distribution: Afrotropical, Western Palaearctic.

***Spalangia cameroni* Perkins, 1910**

Spalangia cameroni Perkins, 1910:656, ♀. – Hawaii.

Material examined. 1♀, Iran: North Khorasan province, Maneh and Semelghan, Qaleh-Khan (37°30'49"N, 56°46'46"E), Malaise trap, 09.VIII.2018, Z. Rahmani Leg.

Distribution in the Middle East: Egypt (El-Sabah et al., 2004), Iran (Vazirianzadeh et al., 2008; current study), Iraq (Abdul-Rassoul et al., 1999), Israel (Havron & Margalit, 1991; Chiel & Kuslitzky, 2016; Betelman et al., 2017; Biale et al., 2020), Morocco (Bouček, 1963; Vago, 2002).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

***Spalangia drosophilae* Ashmead, 1887**

Spalangia drosophilae Ashmead, 1887:199, ♀. – USNM, USA.

Distribution in the Middle East: Iran (Moravvej et al., 2018), Israel (Chiel & Kuslitzky, 2016), Morocco (Vago, 2002).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Western Palaearctic.

***Spalangia endius* Walker, 1839**

Spalangia endius Walker, 1839:96, Holotype ♂. – NHMUK, Chile.

Distribution in the Middle East: Iran (Behbahani et al., 1995), Iraq (Abdul-Rassoul et al., 1999), Israel (Havron & Margalit, 1991; Chiel & Kuslitzky, 2016; Betelman et al., 2017; Biale et al., 2020), Morocco (Bouček, 1963; Vago, 2002), Turkey (Western part – Doğanlar, 2017).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

***Spalangia erythromera* Förster, 1850**

Spalangia erythromera Förster, 1850:512, lectotype ♀. – Germany.

Distribution in the Middle East: Iran (Gibson et al., 2021), Turkey (Western part – Doğanlar, 2017).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Neotropical, Western Palaearctic.

***Spalangia fuscipes* Nees, 1834**

Spalangia fuscipes Nees, 1834:270, ♀♂. – lost, Germany.

Distribution in the Middle East: Algeria (Bouček, 1963), Iran (Gibson et al., 2021), Morocco (Vago, 2002; Gibson, 2009), Turkey (Central part – Bouček, 1963; Doğanlar, 2017; Eastern part – Doğanlar, 1985, 2017).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Oriental, Western Palaearctic.

***Spalangia gemina* Bouček, 1963**

Spalangia gemina Bouček, 1963:484, Holotype ♀. – NHMUK, Mauritius.

Distribution in the Middle East: Egypt (El-Sabah et al., 2004), Israel (Chiel & Kuslitzky, 2016).

Zoogeographical distribution: Afrotropical, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Spalangia irregularis Bouček, 1963

Spalangia irregularis Bouček, 1963:442, Holotype ♂. – NMPC, Israel.

Distribution in the Middle East: Israel (Bouček, 1963), Turkey (Central part – Doğanlar, 2017).

Zoogeographical distribution: Western Palaearctic.

Spalangia kocakeri Doğanlar, 2017

Spalangia kocakeri Doğanlar, 2017:481, Holotype ♂. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central part – Doğanlar, 2017).

Zoogeographical distribution: Western Palaearctic.

Spalangia longepetiolata Bouček, 1963

Spalangia longepetiolata Bouček, 1963:487, Holotype ♂. – HNHM, Ethiopia.

Distribution in the Middle East: Yemen (Bouček, 1963).

Zoogeographical distribution: Afrotropical, Neotropical.

Spalangia marashensis Doğanlar, 2017

Spalangia marashensis Doğanlar, 2017:486, ♀♂, Holotype ♂. – MCES, Turkey.

Distribution in the Middle East: Turkey (Central and Western part – Doğanlar, 2017).

Zoogeographical distribution: Western Palaearctic.

Spalangia nigra Latreille, 1805

Spalangia nigra Latreille, 1805:228, Lectotype ♀. – MRSN, France.

Distribution in the Middle East: Iran (Gibson et al., 2021).

Zoogeographical distribution: Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

Spalangia nigripes Curtis, 1839

Spalangia nigripes Curtis, 1839:740, ♀. – United Kingdom.

Distribution in the Middle East: Iran (Gibson et al., 2021), Lebanon (Bouček, 1963).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

Spalangia nigroaenea Curtis, 1839

Spalangia nigroaenea Curtis, 1839:740, Holotype ♂. – ANIC, United Kingdom.

Distribution in the Middle East: Egypt (Bouček, 1963; Gadallah et al., 2014), Iran (Lotfalizadeh & Gharali, 2008; Shojaey et al., 2020), Iraq (Abdul-Rassoul et al., 1999), Israel (Havron & Margalit, 1991; Chiel & Kuslitzky, 2016), Morocco (Vago, 2002), Saudi Arabia (Dabbour et al., 1981; Alahmed, 1999), Turkey (Western part – Doğanlar, 2017).

Zoogeographical distribution: Afrotropical, Australasian, Eastern Palaearctic, Nearctic, Neotropical, Oceanic, Oriental, Western Palaearctic.

***Spalangia rugulosa* Förster, 1850**

Spalangia rugulosa Förster, 1850:507, ♂. – Germany.

Distribution in the Middle East: Iran (Abolhassanzadeh et al., 2017), Turkey (Central part – Doğanlar, 2017).

Zoogeographical distribution: Eastern and Western Palaearctic.

***Spalangia slovaca* Bouček, 1963**

Spalangia slovaca Bouček, 1963:453, Holotype ♀. – NMPC, Slovakia.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2017).

Zoogeographical distribution: Western Palaearctic.

Remarks: This species has been recorded from Turkey as *Spalangia slovaca* Bouček, 1963 (Doğanlar, 2017).

***Spalangia subpunctata* Förster, 1850**

Spalangia subpunctata Förster, 1850:516, Lectotype ♀. – NHMW, Germany.

Distribution in the Middle East: Iran (Iranpour et al., 1991; Lotfalizadeh & Gharali, 2008), Morocco (Bouček, 1963; Vago, 2002), Turkey (Eastern part – Doğanlar, 1985, Central, Eastern and Western part – Doğanlar, 2017).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Spalangia* sp.**

Distribution in the Middle East: Syria (Ali et al., 2015).

Subfamily Sycoecinae Hill, 1967**Genus *Crossogaster* Mayr, 1885**

Crossogaster Mayr, 1885:189. Type species: *Crossogaster triformis* Mayr, 1885, by monotypy.

***Crossogaster triformis* Mayr, 1885**

Crossogaster triformis Mayr, 1885:192. – Yemen, Socotra.

Distribution in the Middle East: Yemen (Mayr, 1885; van Noort & van Harten, 2006).

Zoogeographical distribution: Afrotropical.

Genus *Philocaenus* Grandi, 1952

Philocaenus Grandi, 1952:38. Type species: *Philocaenus barbatus* Grandi, 1952, by monotypy.

***Philocaenus arrujumensis* van Noort, 2006**

Philocaenus arrujumensis van Noort (in van Noort & van Harten), 2006:461–463, Holotype ♀. – SAMC, Yemen.

Distribution in the Middle East: Yemen (van Noort & van Harten, 2006).

Zoogeographical distribution: Afrotropical.

Subfamily Sycoryctinae Wiebes, 1966**Genus *Apocrypta* Coquerel, 1855**

Apocrypta Coquerel, 1855:367. Type species: *Apocrypta perplexa* Coquerel, 1855. Designation by Ashmead, 1904.

***Apocrypta longitarsus* Mayr, 1906**

Apocrypta longitarsus Mayr, 1906:163. – Cameroon.

Distribution in the Middle East: Egypt (Galil, 1967), Iran (Gibson et al., 2021), Israel (Galil & Eisikowitch, 1968), UAE (van Noort & Rasplus, 2010), Yemen (van Noort & van Harten, 2006).

Zoogeographical distribution: Afrotropical, Western Palaearctic.

Genus *Philotrypesis* Förster, 1878

Philotrypesis Förster, 1878:59. Type species: *Philotrypesis longicauda* Förster, 1878, original designation and monotypy.

***Philotrypesis caricae* (Linnaeus, 1762)**

Cynips caricae Linnaeus (in Hasselqvist), 1762:466. – NHMUK, Israel.

Distribution in the Middle East: Iran (Lotfalizadeh et al., 2014), Israel (Hasselqvist, 1762), Morocco (Kissayi et al., 2021), Turkey (Western part – Doğanlar, 2012).

Zoogeographical distribution: Eastern Palaearctic, Nearctic, Western Palaearctic.

***Philotrypesis emeryi* Grandi, 1926**

Philotrypesis emeryi Grandi, 1926:362, ♀♂. – Indonesia.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2012).

Zoogeographical distribution: Eastern and Western Palaearctic, Nearctic, Neotropical, Oceanic, Oriental.

***Philotrypesis taiwanensis* Chen, 1999**

Philotrypesis taiwanensis Chen (in Chen et al.), 1999:68–69, 71, ♀♂, Holotype ♀. –TARI, Taiwan.

Distribution in the Middle East: Turkey (Western part – Doğanlar, 2012).

Zoogeographical distribution: Neotropical, Oriental, Western Palaearctic.

***Philotrypesis* sp. near *breviventris* Abdurahiman & Joseph, 1968**

Philotrypesis breviventris Abdurahiman & Joseph, 1968:5, ♀♂, Holotype ♀. –India-Kerala.

Distribution in the Middle East: Saudi Arabia (Ghramh & Ahmad, 2014).

Zoogeographical distribution: Afrotropical (Ghramh & Ahmad, 2014), Oriental.

***Philotrypesis* sp.**

Distribution in the Middle East: UAE (van Noort & Rasplus, 2010), Yemen (van Noort & van Harten, 2006).

Genus *Sycoscapter* Saunders, 1883

Sycoscapter Saunders (in Westwood), 1883:34–35. Type species: *Sycoscapter insignis* Saunders, 1883, by monotypy.

***Sycoscapter coccothraustes* (Mayr, 1885)**

Sycoryctes coccothraustes Mayr, 1885:217. – Yemen.

Distribution in the Middle East: Yemen (Mayr, 1885; Jansta, 2012).

Zoogeographical distribution: Afrotropical.

***Sycosapter truncatus* (Mayr, 1885)**

Sycoryctes truncatus Mayr, 1885:218. – Yemen.

Distribution in the Middle East: Yemen (Mayr, 1885; Jansta, 2012).

Zoogeographical distribution: Afrotropical.

***Sycosapter* sp.**

Distribution in the Middle East: UAE (van Noort & Rasplus, 2010), Yemen (van Noort & van Harten, 2006).

Genus *Watshamiella* Wiebes, 1981

Watshamiella Wiebes (in Bouček et al.), 1981:188. Type species: *Watshamiella alata* Wiebes, 1981, original designation.

***Watshamiella* sp.**

Distribution in the Middle East: Yemen (van Noort & van Harten, 2006).

DISCUSSION

This work lists 445 species of the family Pteromalidae belonging to 134 genera and 17 subfamilies, from 20 countries in the Middle East and North Africa areas (Table 1). Among the countries of the Middle East, Turkey and Iran are known as the more explored countries with 236 and 211 recorded species, respectively (Fig. 4). On the basis of the new findings, 22 species in 15 genera are identified from various regions of Iran, among them the genus *Plutothrix* Förster, 1856 and two species, *Plutothrix trifasciata* (Thomson, 1878) and *Homoporus pulchripes* Erdős, 1953 belonging to the subfamily Pteromalinae and the monotypic genus, *Blascoa* Askew, 1997 belonging to the subfamily Miscogastrinae are recorded for the first time from Iran. Both species and the genus *Blascoa* Askew are considered new records for the Middle East. The genus *Plutothrix* Förster consisting 28 species, of which 17 are known from the Palearctic region (Noyes, 2019). Among the adjacent countries of Iran, only a single species of this genus, *P. trifasciata* was reported from Kazakhstan and Russia (Noyes, 2019). The genus, *Blascoa* Askew, 1997, was described on the basis of type species *Blascoa ephedrae* Askew, 1997, from Spain and occurred only in Romania and Spain countries (Noyes, 2019). Considering the new records, the number of genera and species in Iran raised to 84 and 211, respectively.

The Eastern part of Iran represents the border of Eastern and Western Palearctic fauna (Rahmani et al., 2020d; Zardouei Heydari et al., 2020a, 2020b) with the faunal elements of both Afrotropical and Oriental regions in the southeastern parts (Olson et al., 2001; Derafshan et al., 2016, 2017, 2020, 2021; Ghafouri Moghaddam et al., 2019; Heraty et al., 2019). So far, 24 species of Pteromalidae have been reported from the East of Iran (Hasani et al., 2011; Modarres Awal., 2012; Hasani & Madjdzadeh, 2012; Rahmani et al., 2019a, 2019b, 2020a, 2020b). The new findings revealed the occurrence of 10 more species in this area, that were already recorded from central and western parts of the country. There are no published records from Pteromalidae from Bahrain and Qatar countries and only a single species is recorded from Kuwait.

Biogeographically, the species of Pteromalidae recorded from the Middle East area, are mainly distributed in Palearctic and Afrotropical regions, but a few species were also shared with the Nearctic and Oriental regions, too (Fig. 5). The majority of the species (268 species, 60.2%) are exclusively distributed in Palearctic region. A small percentage of the Palearctic species are found in the Nearctic (39 species, 8.8%), Afrotropical (15, 3.4%) and Oriental (16, 3.6%) regions. Considering the sporadic and limited nature of the studies in the countries of the Middle East area, no clear judgments can be made about faunal complexity and similarity of species among the countries. Furthermore, little is known about the distribution of the recorded species throughout this area.

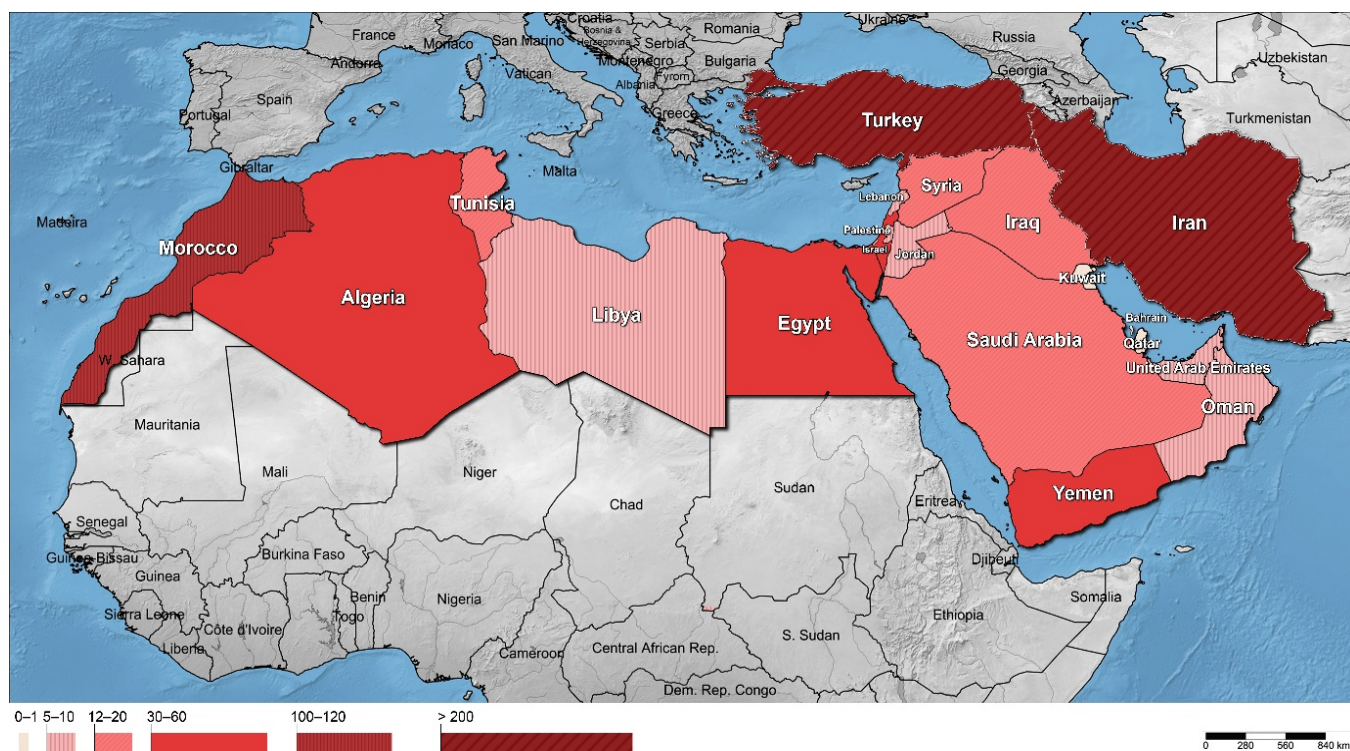


Figure 4. Map of the countries in the Middle East and North Africa The gradient shades indicating intensity of the recorded Pteromalidae species in each country.

Table 1. Number of genera and species of the subfamilies of Pteromalidae in the Middle East countries.

Subfamily	Number of Genera	Number of Species
Ceinae	1	1
Diparinae	1	1
Macromesinae	1	2
Colotrechninae	1	10
Spalangiinae	1	17
Sycoecinae	2	2
Asaphinae	2	4
Cerocephalinae	2	4
Otitesellinae	2	5
Pireninae	2	32
Epichrysomallinae	3	4
Ormocerinae	4	10
Sycoryctinae	4	7
Eunotinae	4	8
Miscogasterinae	9	31
Cleonyminae	9	23
Pteromalinae	86	284
Total	134	445

A considerable number of species are recorded on a few occasions with the known distribution exclusively limited to a single country, i.e. 56 species (12.6%) in Turkey, 25 species (5.6%) in Yemen, 10 species (2.2%) in Morocco and 7 species (1.6%) in Iran. Several taxonomic and faunistic studies are necessary to fill these gaps and clarify the real patterns of endemism, invasive species and diversity within the various habitats of each country in the Middle East. The genera *Gastrancistrus* (27 species), *Pteromalus* (26), *Mesopolobus* (25), *Pachyneuron* (21), *Halticoptera* (18) and *Spalangia* (17) are the largest groups in the Pteromalidae fauna of the Middle East. On the other hand, 70 genera, each represented by a single species in the Middle East, among them 19 genera are known as monotypic taxa, worldwide. Seventeen species of Pteromalidae belonging to nine genera are exclusively recorded in the western part of Turkey (Doğanlar, 2006, 2007, 2018b, 2018c, 2018d, 2020a, 2020b, 2021; Doğanlar & Doğanlar, 2010; Kaçar & Doğanlar, 2020) and possibly can not be considered as the core elements of the Middle East area. On the other hand, even the small genera in the above-mentioned group include species that are distributed in the Middle East countries, or at least in the more explored areas (Iran and Turkey).

The same faunal analysis can be stated for eighteen species that their known distribution in the Middle East is yet restricted to the North African countries (Delucchi, 1962a, 1962b; Giraud, 1870; Fairmaire, 1879; Masi, 1929, 1934; Ghesquière, 1963; Hedqvist, 1967; Subba Rao, 1973; Bouček, 1991; Vago, 2002; Werner & Peters, 2018; Kissayi et al., 2019). Species of two genera *Paradinarmus* Masi and *Anorbanus* Bouček are exclusively recorded from Libya and Algeria, respectively. From a biological point of view, there is a wide range of associations for some of the known Pteromalidae in the Middle East area. They were found in association with gall wasps (e.g. Askew et al., 2006; Lotfalizadeh et al., 2006, 2012b), agromyzid leafminers (e.g. Çikman, 2012; Ranji et al., 2016), parasitoids of the bruchid beetle (e.g. Abu-shall Amany & Tawfeek, 2019; Özgen, 2019.), aphid parasitoids (e.g. Bandyan et al., 2021; Ghafouri-Moghaddam et al., 2014), scale insects (e.g. Mansour et al., 2011; Ebrahimi, 2014).

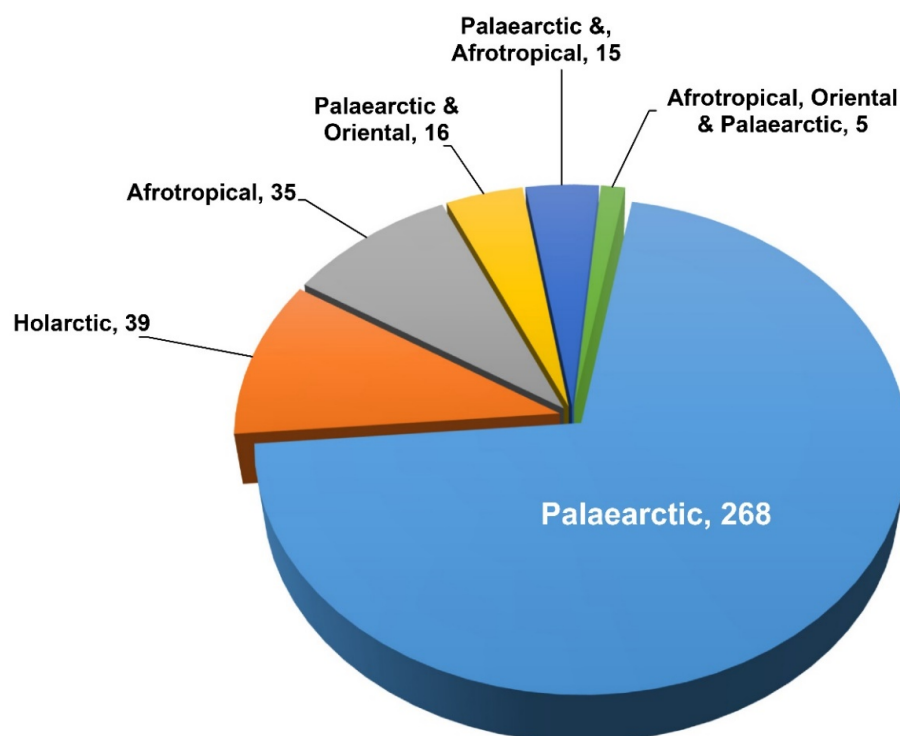


Figure 5. Biogeographical distribution of the known Pteromalidae species from the Middle East and North African countries.

Irrelevant records

A long series of Pteromalidae species are recorded from Iran with unclear statements about voucher specimens and the depositories. In many cases the records are based on the “ghost specimens” which have never gone through the relevant identification by the experts, even those sometimes mentioned as co-authors. Two species of the genus *Solenura* Westwood, 1868, including *Solenura ania* (Walker, 1846) and *Solenura nigra* (Walker, 1872) are the elements of the Oriental/Far East and Afrotropical region (Noyes, 2019), so their occurrence in Iran (Ghahari, 2019) is rather unlikely. The reliability of many records suffers both from a taxonomic point of view and the irrelevancy of the generalist periodicals, where they were published without a peer-review process. A similar conclusion was already highlighted obligately (Rahmani et al., 2020a). With regards to the erroneous nature of these data, all the species records from these surveys are suspended from the list of Iranian fauna (Table 2), until their occurrences are confirmed on the basis of relevantly identified specimens by the experts. It is worth noting that the whole listed species were already included in Gibson et al. (2021) without such a critical screening.

Table 2. Irrelevant records of Pteromalidae species that suspended from the list of Iranian fauna.

Excluded species	References	Zoogeographical distribution
<i>Hyperimerus pusillus</i> (Walker, 1833)	Abd-Rabou et al. (2005) Ghahari et al. (2010b)	E & W PAL, NA
<i>Cerocephala cornigera</i> Westwood, 1832	Abd-Rabou et al. (2005) Ghahari et al. (2010b)	W PAL
<i>Cerocephala rufa</i> (Walker, 1833)	Sakenin et al. (2008b)	E & W PAL, NA
<i>Agrilocida ferrierei</i> Steffan, 1964	Abd-Rabou et al. (2005) Ghahari & Huang (2012)	E & W PAL
<i>Notanisus sexramosus</i> (Erdos, 1946)	Ghahari & Tabari (2019)	NA, W PAL
<i>Solenura ania</i> (Walker, 1846)	Ghahari (2019)	E PAL, ORI
<i>Solenura nigra</i> (Walker, 1872)	Ghahari (2019)	AFR
<i>Dipara petiolata</i> Walker, 1833	Abd-Rabou et al. (2005) Ghahari & Huang (2012)	NA, W PAL
<i>Eunotus acutus</i> Kurdjumov, 1912	Ghahari et al. (2010a)	E & W PAL
<i>Eunotus areolatus</i> (Ratzeburg, 1852)	Abd-Rabou et al. (2019)	E & W PAL
<i>Mesopeltita truncatipennis</i> (Waterston, 1917)	Abd-Rabou et al. (2005) Ghahari & Huang (2012)	AFR, E & W PAL, NA, NEO, ORI
<i>Scutellista obscura</i> (Förster, 1878)	Ghahari et al. (2010b)	E & W PAL
<i>Macromesus amphiretus</i> Walker, 1848	Abd-Rabou et al. (2005) Ghahari & Huang (2012)	W PAL
<i>Halticoptera crius</i> (Walker, 1839)	Ghahari & Huang (2012) Ghahari (2014)	E & W PAL
<i>Miscogaster maculata</i> Walker, 1833	Sakenin et al. (2019)	E & W PAL
<i>Seladerma geniculatum</i> (Zetterstedt, 1838)	Sakenin et al. (2019)	E & W PAL
<i>Thektogaster chrysis</i> (Foerster, 1861)	Abd-Rabou et al. (2005)	E & W PAL
<i>Thinodytes cyzicus</i> (Walker, 1839)	Abd-Rabou et al. (2005)	E & W PAL, ORI
<i>Xestomnaster chrysochlorus</i> (Walker, 1846)	Sakenin et al. (2008a, 2008b)	W PAL
<i>Ormocerus vernalis</i> Walker, 1834	Ghahari et al. (2010b) Abd-Rabou et al. (2005)	W PAL

Table 2. Continued.

Excluded species	References	Zoogeographical distribution
<i>Macroglenes varicornis</i> (Haliday, 1833)	Ghahari & Tabari (2019)	E & W PAL
<i>Ablaxia anaxenor</i> (Walker, 1845)	Sakenin et al. (2008b) Ghahari et al. (2010a)	W PAL
<i>Ablaxia parviclava</i> (Thomson, 1878)	Ghahari et al. (2010b)	W PAL
<i>Anogmus hohenheimensis</i> (Ratzeburg, 1844)	Abd-Rabou et al. (2019)	W PAL
<i>Apsilocera bramleyi</i> Graham, 1966	Ghahari & Huang (2012)	W PAL
<i>Arthrolytus discoideus</i> (Nees, 1834)	Sakenin et al. (2019)	W PAL
<i>Bairamilia fuscipes</i> Waterston, 1929	Sakenin et al. (2008b)	W PAL
<i>Callitula angioneuræ</i> Bouček, 1970	Ghahari et al. (2010b)	W PAL
<i>Capellia cecidomyiae</i> (Ratzeburg, 1844)	Sakenin et al. (2008a), Ghahari et al. (2010a)	E & W PAL
<i>Chlorocyttus breviscapus</i> Graham, 1965	Ghahari (2014)	W PAL
<i>Coruna clavata</i> Walker, 1833	Abd-Rabou et al. (2005)	E & W PAL, NA, ORI
<i>Cratomus megacephalus</i> (Fabricius, 1793)	Abd-Rabou et al. (2005) Ghahari & Huang (2012)	NA, W PAL
<i>Diglochis sylvicola</i> (Walker, 1835)	Sakenin et al. (2008a) Ghahari & Huang (2012)	E & W PAL
<i>Dinarmoides spilopterus</i> Masi, 1924	Sakenin et al. (2019)	AFR, E & W PAL
<i>Dinarmus italicus</i> (Masi, 1922)	Ghahari (2014)	E & W PAL
<i>Eurydinota leptomera</i> Förster, 1878	Ghahari & Huang (2012)	W PAL
<i>Gastracanthus pulcherrimus</i> Westwood, 1833	Abd-Rabou et al. (2005) Ghahari & Huang (2012)	W PAL
<i>Goidanichium atrum</i> Bouček, 1970	Abd-Rabou et al. (2005)	W PAL
<i>Gyrinophagus aper</i> (Walker, 1839)	Sakenin et al. (2008b)	NA, W PAL
<i>Gyrinophagus luteipes</i> Ruschka, 1914	Sakenin et al. (2008b)	W PAL
<i>Hemitrichus seniculus</i> (Nees, 1834)	Sakenin et al. (2019)	NA, W PAL
<i>Homoporus destructor</i> (Say, 1817)	Ghahari & Tabari (2019)	E & W PAL, NA
<i>Homoporus luniger</i> (Nees, 1834)	Abd-Rabou et al. (2019)	E & W PAL, OR
<i>Meraporus graminicola</i> Walker, 1834	Sakenin et al. (2008a)	W PAL
<i>Merisus splendidus</i> Walker, 1834	Ghahari & Huang (2012)	E & W PAL
<i>Mesopolobus graminum</i> (Hårdh, 1950)	Ghahari (2019)	E & W PAL
<i>Mesopolobus juniperinus</i> Rosen, 1958	Ghahari (2014)	E & W PAL
<i>Mesopolobus mediterraneus</i> (Mayr, 1903)	Sakenin et al. (2008b)	W PAL
<i>Mesopolobus morys</i> (Walker, 1848)	Ghahari et al. (2010a)	E & W PAL, NA
<i>Mesopolobus subfumatus</i> (Ratzeburg, 1852)	Abd-Rabou et al. (2005)	E & W PAL, NA
<i>Metacolus azureus</i> (Ratzeburg, 1844)	Ghahari et al. (2010b)	E & W PAL
<i>Metacolus unifasciatus</i> Förster, 1856	Abd-Rabou et al. (2005) Ghahari & Huang (2012)	AFR, E & W PAL
<i>Mokrzeckia menzeli</i> Subba Rao, 1981	Ghahari (2019)	ORI
<i>Mokrzeckia pini</i> (Hartig, 1838)	Sakenin et al. (2008a, 2008b)	E & W PAL

Table 2. Continued.

Excluded species	References	Zoogeographical distribution
<i>Nikolskayana mirabilis</i> Bouček, 1965	Abd-Rabou et al. (2005) Ghahari & Huang (2012)	E PAL
<i>Paracarotomus cephalotes</i> Ashmead, 1894	Abd-Rabou et al. (2005) Ghahari & Huang (2012)	AFR, AUS, E & W PAL, NA, OC, ORI
<i>Phaenocyttus glechomae</i> (Förster, 1841)	Ghahari et al. (2010b)	E & W PAL
<i>Platecrizotes europaeus</i> Bouček, 1964	Abd-Rabou et al. (2005)	W PAL
<i>Psilonotus achaeus</i> Walker, 1848	Abd-Rabou et al. (2019)	E & W PAL, NA
<i>Pteromalus intermedius</i> (Walker, 1834)	Ghahari et al. (2010b) Ghahari (2014)	E & W PAL
<i>Pteromalus smaragdus</i> Graham, 1969	Ghahari (2014)	W PAL
<i>Rhaphitelus ladenbergii</i> (Ratzeburg, 1844)	Abd-Rabou et al. (2005)	W PAL
<i>Sceptrothelys intermedia</i> Graham, 1969	Sakenin et al. (2008a)	E & W PAL
<i>Sphegigaster brevicornis</i> (Walker, 1833)	Ghahari et al. (2010a)	W PAL
<i>Sphegigaster pallicornis</i> (Spinola, 1808)	Sakenin et al. (2019)	E & W PAL, NA
<i>Spintherus dubius</i> (Nees, 1834)	Ghahari & Tabari (2019)	E & W PAL
<i>Stenomalina favorinus</i> (Walker, 1839)	Abd-Rabou et al. (2019)	W PAL
<i>Stenomalina gracilis</i> (Walker, 1834)	Ghahari et al. (2010b)	E & W PAL, NA
<i>Sycosapter</i> sp. near <i>amplissima</i> Narendran	Ghramh & Ahmad, 2014	<i>nomen nudum</i>
<i>Tomicobia seitneri</i> (Ruschka, 1924)	Sakenin et al. (2008a)	E & W PAL, ORI
<i>Toxeuma fuscicorne</i> Walker, 1833	Abd-Rabou et al. (2005) Ghahari et al. (2010b)	W PAL
<i>Trichomalopsis microptera</i> (Lindeman, 1887)	Sakenin et al. (2019)	E & W PAL, NA
<i>Trichomalus nanus</i> (Walker, 1836)	Sakenin et al. (2019)	E & W PAL
<i>Trichomalus perfectus</i> (Walker, 1835)	Sakenin et al. (2008a, 2008b) Ghahari & Huang (2012)	NA, W PAL
<i>Trichomalus posticus</i> (Walker, 1834)	Ghahari (2014) Ghahari et al. (2010b)	E & W PAL
<i>Trigonoderus pulcher</i> Walker, 1836	Ghahari et al. (2010b)	E & W PAL, ORI
<i>Tritneptis affinis</i> (Nees, 1834)	Abd-Rabou et al. (2019)	E & W PAL, NA
<i>Tritneptis klugii</i> (Ratzeburg, 1844)	Ghahari (2019)	E & W PAL, NA
<i>Philotrypesis pilosa</i> Mayr, 1906	Ghahari et al. (2010a)	ORI

AUTHOR'S CONTRIBUTION

The authors confirm their contribution in the paper as follows: Z.R.: Compiling the data, sampling, mounting and identification of the specimens, and preparation of the photographs. E.R.: Supervising the work, writing the manuscript and correspondence. H.L.: Confirming the identity of specimens, checking the validity of the recorded data and revising the manuscript. A.M.: Technical helps in samplings and examination of the specimens. All authors read and approved the final version of the manuscript.

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AVAILABILITY OF DATA AND MATERIAL

Not applicable.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Not applicable.

CONSENT FOR PUBLICATION

Not applicable.

CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest regarding the publication of this paper.

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چک لیست خانواده (Hymenoptera, Chalcidoidea) Pteromalidae در منطقه خاورمیانه و شمال آفریقا

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چکیده: گونه‌های خانواده Pteromalidae از کشورهای خاورمیانه بررسی شدند. در مجموع ۴۴۵ گونه متعلق به ۱۳۴ جنس و ۱۷ زیرخانواده از ۲۰ کشور شامل الجزایر (۲۵ جنس، ۳۷ گونه)، مصر (۲۷ جنس، ۳۷ گونه)، ایران (۸۴ جنس، ۲۱۱ گونه)، عراق (۱۳ جنس، ۱۸ گونه)، اسرائیل (۳۴ جنس، ۵۳ گونه)، اردن (۸ جنس، ۹ گونه)، کویت (۱ جنس، ۱ گونه)، لبنان (۵ جنس، ۵ گونه)، لیبی (۹ جنس، ۱۰ گونه)، مراکش (۷۱ جنس، ۱۲۲ گونه)، عمان (۳ جنس، ۵ گونه)، فلسطین (۵ جنس، ۵ گونه)، عربستان سعودی (۱۰ جنس، ۱۴ گونه)، سوریه (۱۱ جنس، ۱۵ گونه)، تونس (۱۵ جنس، ۱۷ گونه)، ترکیه (۷۵ جنس، ۲۳۶ گونه)، امارات متحده عربی (۷ جنس، ۷ گونه) و یمن (۲۷ جنس، ۴۵ گونه) گزارش شدند. هیچ گونه‌ای از خانواده Pteromalidae از بحرین و قطر منتشر نشده است. در این مطالعه براساس یافته‌های جدید ۲۲ گونه در ۱۵ جنس از مناطق مختلف ایران جمع‌آوری و شناسایی شدند. در میان آنها جنس‌های *Blascoa* Askew, 1997 و *Plutothrix* Förster, 1856 و سه گونه‌ی *Blascoa ephedrae* Askew, 1997 و *Homoporus pulchripes* Erdös, 1953 و *Plutothrix trifasciata* (Thomson, 1878) گزارش‌های جدیدی برای فون ایران هستند. جنس *Blascoa* Askew و سه گونه برای فون خاورمیانه نیز جدید هستند. از نظر جغرافیایی زیستی، گونه‌های گزارش شده از خاورمیانه به طور گسترده در منطقه غرب پالتارکتیک انتشار دارند. از این تعداد، ۲۶۸ گونه تنها در سراسر پالتارکتیک بدون هیچ گزارشی از سایر مناطق انتشار دارند. در میان کشورهای منطقه خاورمیانه، بیشترین درصد بوم‌زادی گونه‌های خانواده Pteromalidae در ترکیه (۵۶ گونه، ۱۲/۶٪) و یمن (۲۵ گونه، ۵/۶٪) ثبت شد. گونه‌های گزارش شده از کشور یمن نمایانگر فون مناطق پالتارکتیک و آفروتروپیکال هستند. برای هر گونه پراکنش منطقه‌ای و همچنین دامنه انتشار در حوزه‌های زیست‌جغرافیایی ارایه شد.

واژگان کلیدی: بال‌غشاییان، خاورمیانه، آفروتروپیکال، پالتارکتیک، پترومالیده‌ها، پارازیتوئیدها