An annotated checklist of Iranian Asilidae  
(Insecta: Diptera: Brachycera: Asiloidea)

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A b s t r a c t: A checklist of the Asilidae (Diptera) from Iran is provided based on a survey of the literature. In total 289 species and subspecies representing 88 genera and 9 subfamilies (Apocleinae, Asilinae, Atomosinae, Dasyypogoninae, Laphriinae, Laphystiinae, Leptogastrinae, Ommatiinae, Stenopogoninae) are listed. Synonymies, distribution data, and prey records, where available, are presented for each species.

K e y w o r d s: Diptera, Asilidae, Robber fly, Predator, Prey, Catalogue, Iran.

Introduction

Robber flies or assassin flies (Asiloidea, Asilidae) comprise one of the most taxonomically diverse, speciose, and conspicuous families of Diptera (BARNES et al. 2007). This family is particularly known for its predatory habits and mimicry of other insects, especially bees and wasps (Hymenoptera) (LAVIGNE et al. 1978). Robber flies are an important group of predators in all zoogeographical regions (LONDT 2006), and are characteristic of steppe and desert landscapes (ASTAKHOV 2011). Over 7,000 valid species are known, representing 530 genera and subgenera; these are distributed throughout the world, except in the Arctic and the Antarctic. In addition, 18 genera and 39 species have been described from the Eocene, Oligocene, and Miocene; 15 of these genera exist today (GHAHARI et al. 2007c).

Asilids display both great diversity and abundance in arid regions, and in grasslands (LONDT 2006). These are highly effective predatory as adults (both sexes) and larvae, feeding mainly on insects and more rarely, on spiders. The saliva with a nerve toxin and proteolytic enzymes has important role in external digestion of prey (KAHAN 1964; LAVIGNE et al. 1978; WOOD 1981). Certain robber fly species seem to prefer bumble-bees, wasps, dragonflies, grasshoppers, or beetles. The web-based Predator-Prey Database for Asilidae (Hexapoda: Diptera) created by LAVIGNE (2003) currently contains approximately 58,000 prey records. However, these records do not necessarily provide exact numbers of prey taken, since in many cases authors have simply stated that "several", "multiple" or "many" of any given species were taken as prey. Summaries have been published for Hymenoptera (DENNIS & LAVIGNE 2007), Lepidoptera (DENNIS et al. 2009) and Araneae (DENNIS et al. 2012).

The larvae of Asilidae are predators, or ectoparasites, that feed on eggs, larvae, or pupae
of other insects. Larvae of most species that have been reared fed on white grubs (Coleoptera: Scarabaeidae), but some have been known to prey on larvae of other beetle families, and on larvae of Hymenoptera and Diptera, with a single reference to feeding on Orthoptera eggs (KNUTSON 1972; WOOD 1981; FOOTE 1991).

The first formal analysis using molecular evidence was presented by BYBEE et al. (2004) in order to illustrating phylogenetic relationships among the Asilidae and 10 subfamilies were recognized: Apocleinae, Asilinae, Dasypogoninae, Laphriinae, Laphystiinae, Leptogastrinae, Ommatiinae, Stenopogoninae, Stichopogoninae and Trigonomiminae. Most recently DIKOW (2009a, b) used both morphological and DNA sequence data to recognize 14 subfamilies: Asilinae, Bathypogoninae, Brachyrhopalinae, Dasypogoninae, Dioctriinae, Laphriinae, Leptogastrinae, Ommatiinae, Phellinae, Stenopogoninae, Stichopogoninae, Tillobromatinae, Trigonomiminae and Willistonininae. Bathypogoninae, Phellinae, Tillobromatinae and Willistonininae do not occur in Iran; therefore our results only deal with the remaining subfamilies.

Iran is a large country - covers an area of 1.623.779 km², and is bordered in the north by the Caucasus Mts., Middle Asian natural regions and the Caspian Sea (-27 m below sea level); in the west by the Anatolian and Mesopotamian regions; in the east by the eastern part of the Iranian plateau (Afghanistan and adjacent west Pakistan) and the Baluch-Sindian region; and finally in the south by the Persian Gulf and Oman Sea, which are connected by the latter to the Indian Ocean (ZEHZAD et al. 2002) (Figure 1). It has a spectacular position between three different ecological zones, the Palaeartic, Afrotropical and Indomalayan.

The first published records of Iranian asilids were those of PORTSCHINSKY (1873), who described two new species. This was followed by papers by BIGOT (1880) and HERMANN (1905), who reported on new and little known species from "Persia". As a result of the Persian expeditions of N.A. Zarudny from 1898 to 1901, additional species were recorded (BECKER & STEIN 1913). ENGEL (1930) summarised the known distribution of the Asilidae of the Palaeartic, including the species that had been collected in Iran up to that time. It was not until the mid 1950s that interest in the Iranian asilid fauna was rekindled by TIMON-DAVID (1955), who erected a new genus, Iranopogon, for a previously undescribed species, which he named I. brandti. Subsequently, OLDROYD (1958) produced a list of asilids from Iran, while JANSENS (1961) commented on species occurring in both Iraq and Iran. Three years later, ABBASSIAN-LINTZEN (1964a) made the first definitive study of Iranian Asilidae and, in a companion paper, she compiled notes on the genus Eremisca (ABBASSIAN-LINTZEN 1964b). While revising the genus Neomochtherus Osten-Sacken, TSACAS (1968) observed that some species of that genus had been recorded from Iran. THEODOR (1980), who has produced the most modern treatment of the Asilidae of the Palaestine/Israel region, noted that some of those species also had been recorded in Iran. GELLER-GRIMM & HRADSKY (1999), TOMASOVIC (1999, 2002) and TOMASOVIC & SAGHAEI (2009) have recently described additional new species from Iran.

Biological notes concerning Iranian robber fly species are very rare and usually consist of habitat or prey records, such as those provided by ABBASSIAN-LINTZEN (1964a). A record of a dragonfly (Odonata: Libellulidae: Orthetrum sp.) falling prey to an undetermined asilid species was published by MCLACHLAN (1903), while a "Persian" asilid [Philonicus albiceps (MEIGEN, 1820)] was noted attacking house flies by RICARDO
(1920). HAYAT et al. (2008) prepared a list of Iranian Asilidae which included 156 species; subsequently SAGHAEI et al. (2010) added 76 species for a total of 232. Additional species have since been encountered and/or distribution records added due to work carried on during the period 2007-2011. Additionally while the predator-prey relationship between Asilidae and Iranian Arthropoda was investigated previously the records are scattered throughout the literature. The intent of the present paper is to update all distribution data, to update systematic relationships and to consolidate data on Iranain Asilid-prey relationships.

Materials and Methods

Published data on the family Asilidae (Diptera) in Iran are summarized. The checklist contains the following data: the valid taxa name, published records with provincial distribution (Figure 1), or when this information is not available - "Iran (no locality cited)" is given, synonyms and prey records. The nomenclature, synonymy and distribution follow that of GELLER-GRIMM (2007) and LEHR (1988), plus other references, e.g. ENGEL (1930), EFFLATOUN BEY (1934), THEODOR (1980), LEHR (1992, 1996), LEHR et al. (2007), and HAYAT et al. (2008).

Results

Results of the literature survey show that 279 species and 10 subspecies representing 89 genera and 9 subfamilies are now known to occur in Iran. For ease of use, species and subspecies are listed alphabetically under subfamily and generic headings and do not reflect taxonomic relationships. Group names listed below reflect changes proposed by DIKOW (2003, 2009a,b).

Family Asilidae LATREILLE, 1802

Subfamily Apocleinae PAPAVERO, 1973

Genus Apoclea MACQUART, 1838

Apoclea albipila BECKER in BECKER & STEIN, 1913

Distribution in Iran: Sistan & Baluchestan (BECKER & STEIN 1913), Iran (no locality cited) (ENGEL 1930; LEHR 1988).

Comments: Endemic to Iran.

Apoclea algira (LINNÉ, 1767) [Asilus]

Asilus alginis FABRICIUS, 1787; A. vegeta WIEDEMANN, 1828; A. pallida MACQUART, 1838; A. fuscana MACQUART, 1838; A. aberrans SCHINER, 1867; A. deformis WALKER, 1871.


Distribution outside Iran: Algeria, Egypt, Israel, Libya, Morocco, Niger, Tunisia, Turkey.
Apoclea continuata Becker in Becker & Stein, 1909
Distribution in Iran: Guilan (Hayat et al. 2008), Sistan & Baluchestan (Becker & Stein 1913), Iran (no locality cited) (Engel 1930).
Comments: Predator of grasshoppers and relatives, especially Paratettix caucasicus Bei-Bienko (Orthoptera: Tettigidae) (Hayat et al. 2008). Endemic to Iran.

Apoclea femoralis (Wiedemann, 1828) [Asilus]
Asilus helva Wiedemann, 1828; A. illustris Schiner, 1867; A. aperta Becker in Becker & Stein, 1909.
Distribution in Iran: Fars (Saghaei et al. 2008, 2009, 2010; Tomasovic & Saghaei 2009), Kerman, Khorasan, Sistan & Baluchestan (Becker & Stein 1913), Iran (no locality cited) (Engel 1930).
Distribution outside Iran: Egypt, Israel, Nigeria, Palestine, Sudan, Yemen.
Comments: Predator of Polistes sp. (Hymenoptera: Vespidae) (Saghaei et al. 2010).

Apoclea helvipes Loew, 1873
Distribution in Iran: Kerman, Sistan & Baluchestan, Southern Iran (Becker & Stein 1913; Oldroyd 1958).
Distribution outside Iran: Algeria, Kazakhstan, Turkey.

Apoclea micracantha Loew, 1856
Distribution in Iran: Isfahan (Ghahari et al. 2007b; Hayat et al. 2008), Mazandaran (Ghahari et al. 2007b, 2009), Iran (no locality cited) (Engel 1930).
Distribution outside Iran: Egypt, Israel, Libya, Morocco, Tunisia, Yemen.
Comments: This species was collected in a rice field, also resting on Polygonum convolvulus (Polygonaceae) (Ghahari et al. 2007b). Predator of Ancistrocerus auctus (Fabricius) (Hymenoptera: Vespidae) (Hayat et al. 2008).

Apoclea plurisetosa Becker in Becker & Stein, 1909
Distribution in Iran: Sistan & Baluchestan (Becker & Stein 1913), Iran (no locality cited) (Engel 1930).
Comments: Endemic to Iran.

Apoclea trivialis Loew, 1873
Distribution in Iran: Khorasan (Becker & Stein 1913).
Distribution outside Iran: Algeria, Kazakhstan, Libya, Tunisia, Turkey.
Genus *Hippomachus* **ENGEL, 1927**

*Hippomachus iranensis* **LONDT, 1985**

**Distribution in Iran:** Sistan & Baluchestan (LONDT 1985).

**Comments:** Endemic to Iran.

*Hippomachus pegasus* **(LOEW, 1858)** [*Trichonotus*]

*Hippomachus bei* **EFFLATOUN und LONDT, 1983.**

**Distribution in Iran:** Sistan & Baluchestan (OLDROYD 1958).

**Distribution outside Iran:** Afrotropical Region, South Africa, West Africa, Egypt (LEHR 1988).

Genus *Philodicus* **LOEW, 1847**

*Philodicus ponticus* **(BIGOT, 1880)** [*Alcimus*]

*Alcimus bimaculatus* **BECKER in BECKER & STEIN, 1913.**

**Distribution in Iran:** Fars (SAGHAEI et al. 2008, 2009, 2010; TOMASOVIC & SAGHAEI 2009), Golestan, Guilan (HAYAT et al. 2008), Kerman, Khorasan (BECKER & STEIN 1913), Khuzestan (GHAHARI et al. 2007b), Mazandaran (GHAHARI et al. 2007b, 2008b), Sistan & Baluchestan (BECKER & STEIN 1913; OLDROYD 1958), Iran (no locality cited) (ENGEL 1930; THEODOR 1980).

**Distribution outside Iran:** Afghanistan, Greece, Iraq, Israel, South European territory, Soviet Middle Asia, former Transcaucasus Republics (incl. Azerbaijan), Turkey.

**Comments:** This species was collected in a rice field (GHAHARI et al. 2008b), and resting on *Brachiaria eruciformis* (Gramineae), and *Sonchus oleraceus* (Compositeae) (GHAHARI et al. 2007b). Predator of *Vespula germanica* (FABRICIUS), *Vespa orientalis LINNAEUS* (Hymenoptera: Vespidae) (HAYAT et al. 2008), and *Tabanus leleani AUSTEN* (Diptera: Tabanidae) (SAGHAEI et al. 2010).

*Philodicus spectabilis* **LOEW, 1871**


**Distribution outside Iran:** Afghanistan, Kazakhstan.

**Comments:** Predator of *Goniocercus walkeri* (MCLACHLAN) (Neuroptera: Myrmeleontidae) (SAGHAEI et al. 2010).

Genus *Promachus* **LOEW, 1848**

*Promachus canus* **(WIEDEMANN, 1818)** [*Asilus*]

*Asilus tesselatus* **PALLAS in WIEDEMANN, 1818 (nomen nudum).**

**Distribution in Iran:** Ardabil (HAYAT et al. 2008), Fars (SAGHAEI et al. 2008, 2009, 2010), Guilan (GHAHARI et al. 2007b, 2009), Mazandaran (GHAHARI et al. 2007b, 2008b), Iran (no locality cited) (ENGEL 1930).

**Distribution outside Iran:** Afghanistan, Kazakhstan, Russia, Turkey.
Comments: This species was collected in a rice field (GHAHARI et al. 2007b, 2008b), and resting on Malva montana (Malvaceae) and, Sorghum halepense (Gramineae) (GHAHARI et al. 2007b). Predator of Podalonia hirsuta hirsuta (SCOPOLI) (Hymenoptera: Sphecidae) (HAYAT et al. 2008), Trachypteris picta (FABRICIUS) (Coleoptera: Buprestidae) (SAGHAEI et al. 2010).

Promachus canus leontochaenus LOEW, 1871

Distribution in Iran: Isfahan, Khorasan (BECKER & STEIN 1913), Semnan (Sakenin et al. 2010), Tehran (Samin et al. 2010).

Distribution outside Iran: Kazakhstan, Turkey.

Comments: Predator of Chalybion (Chalybion) flebile (LEPELETIER de SAINT-FARGEU) (Hymenoptera: Sphecidae) (HAYAT et al. 2008).

Promachus griseiventris BECKER in BECKER & STEIN, 1913

Promachus aegyptiacus Efflatoun, 1929.

Distribution in Iran: Kerman (BECKER & STEIN 1913), Sistan & Baluchestan (BECKER & STEIN 1913; OLDROYD 1958), Iran (no locality cited) (ENGEL 1930; THEODOR 1980).

Distribution outside Iran: Egypt, Israel, Sudan.

Promachus leoninus LOEW, 1848


Distribution outside Iran: Azerbaijan, Bosnia-Herzegovina, Croatia, Greece, India, Israel, Myanmar (Burma), Romania, Russia, Slovenia, Turkey.

Comments: This species was found in a rice field, and resting on Berberis integerrima (Berberidaceae) (GHAHARI et al. 2007b). Predator of Polistes dominulus (CHRIST) (Hymenoptera: Vespidae) (HAYAT et al. 2008).

Promachus maculatus (FABRICIUS, 1775) [Asilus]

Distribution in Iran: East Azarbaijan (Sakenin et al. 2008a), Fars (Sakenin et al. 2008b), Sistan & Baluchestan (Samin et al. 2011a).

Distribution outside Iran: Afghanistan, India, Sri Lanka.

Comments: Predator of Epeolus variegata (LINNAEUS) (Hymenoptera: Anthophororidae) (Samin et al. 2011a), and Platygaster oebalus WALKER (Hymenoptera: Platygastridae) (Sakenin et al. 2008a).

Promachus microlabis LOEW, 1857

Distribution in Iran: Isfahan (GHAHARI et al. 2007a), Khorasan (OSTOVARI & RASTEGAR 2013).

Distribution outside Iran: Cyprus, Syria, Turkey.

Comments: Predator of Eristalis tenax (LINNAEUS) (Diptera: Syrphidae) and Tabanus tergestinus EGGER (Diptera: Tabanidae) (GHAHARI et al. 2007a).
Promachus mustela LOEW, 1854
Distribution in Iran: Semnan (SAKENIN et al. 2010), Tehran (SAMIN et al. 2010).
Distribution outside Iran: Israel, Lebanon, Syria, Turkey.

Promachus rectangularis LOEW, 1854
Erax cinctipes WALKER, 1871 (LOEW, 1873).
Distribution in Iran: Kerman, Sistan & Baluchestan (BECKER & STEIN 1913), Iran (no locality cited) (ENGEL 1930).
Distribution outside Iran: Egypt, Ethiopia, Yemen.

Subfamily Asilinae LATREILLE, 1802
Genus Aneomochtherus LEHR, 1996
Aneomochtherus aerifacies (TSACAS, 1968) [Neomochtherus]
Distribution in Iran: Mazandaran (SAKENIN et al. 2008a), Tehran (SAMIN et al. 2010).
Distribution outside Iran: Turkey.
Comments: Predator of Agapanthus (Agapanthus) walteri REITTER (Coleoptera: Cerambycidae) (SAKENIN et al. 2008a).

Aneomochtherus atripes (OLDROYD, 1958) [Neomochtherus]
Distribution in Iran: Kerman, Sistan & Baluchestan (BECKER & STEIN 1913), Iran (no locality cited) (ENGEL 1930).
Comments: Endemic to Iran.

Aneomochtherus hungaricus rossicus (ENGEL, 1927)
Distribution in Iran: Iran (no locality cited) (TSACAS 1968).
Distribution outside Iran: Armenia, Azerbaijan, China, Kazakhstan, Mongolia.

Aneomochtherus macropygus TSACAS, 1968
Distribution in Iran: Fars (SAGHAEI et al. 2010).
Distribution outside Iran: Israel, Palestine.
Comments: This species was collected in a Ficus carica forest. Predator of Philanthus triangulum (FABRICIUS) (Hymenoptera: Sphecidae) (SAGHAEI et al. 2010).

Aneomochtherus mesopotamicus (JANSSENS, 1961) [Neomochtherus]
Distribution in Iran: Semnan (SAMIN et al. 2011a), Iran (no locality cited) (TSACAS 1968).
Distribution outside Iran: Iraq (LEHR 1988).
Aneomochtherus micrasiaticus (TSACAS, 1968) [Neomochtherus]

Neomochtherus mundus micrasiaticus TSACAS, 1968

Distribution in Iran: West Azerbaijan (SHOEIBI & KARIMPOUR 2010).

Distribution outside Iran: Palaearctic, Afrotropical, Asia, Greece, Turkey (LEHR 1988).

Comments: Predator of grasshoppers, especially Acridella robusta UVAROV (Orthoptera: Acrididae) (SHOEIBI & KARIMPOUR 2010).

Aneomochtherus mundus (LOEW, 1849) [Neomochtherus]

Neomochtherus rhodius TSACAS, 1963.

Distribution in Iran: East Azerbaijan (HAYAT et al. 2008), Fars (SAGHAEI et al. 2010), Golestan, Mazandaran (GHAHARI et al. 2007 b, 2008b).

Distribution outside Iran: Greece, Turkey.

Comments: This species was collected in a rice field (GHAHARI et al. 2007 b, 2008b), and resting on Chenopodium opulifolium (Chenopodiaceae) and Raphistrum rugrosum (Brassicaceae) (GHAHARI et al. 2007 b). Predator of grasshoppers, especially Acridella robusta UVAROV (Orthoptera: Acrididae) (HAYAT et al. 2008) and Salentia sp. (Diptera: Therevidae) (SAGHAEI et al. 2010). Also a fly parasite, Megaselia scalaris (LOEW) (Diptera: Phoridae), was reared from the adults of A. mundus (HAYAT et al. 2008).

Aneomochtherus ochriventris (LOEW, 1854)


Distribution outside Iran: Morocco, Tunisia (LEHR 1988), Spain (TOMASOVIC & SAGHAEI 2009).

Aneomochtherus ochriventris caucasicus TSACAS, 1968

Distribution in Iran: Fars (SAGHAEI et al. 2010).


Comments: This species was collected in an Amygdalus scoparia forest. Predator of Phyllomorpha sp. (Hemiptera: Coreidae) (SAGHAEI et al. 2010).

Aneomochtherus ochriventris persicus TOMASOVIC & SAGHAEI, 2009

Distribution in Iran: Fars (TOMASOVIC & SAGHAEI 2009).

Comments: Endemic to Iran.

Aneomochtherus perplexus (BECKER, 1923) [Cerdistus]

Neomochtherus repentinus RICHTER, 1963.

Distribution in Iran: Fars (TOMASOVIC & SAGHAEI 2009), Gilan (HAYAT et al. 2008), Khuzestan (OLDROYD 1958; GHAHARI et al. 2007 b), Mazandaran (GHAHARI et al. 2007 b), Semnan (SAKENIN et al. 2010), Iran (no locality cited) (TSACAS 1968).

Distribution outside Iran: Armenia, Azerbaijan, Russia, Turkey, Ukraine (LEHR 1988).
Comments: This species was collected resting on *Robinia viscose* (Papilionaceae) and *Ziziphus spina-christi* (Rhamnaceae) (GHAHARI et al. 2007b).

*Aneomochtherus petrishtshevae* (STACKELBERG, 1937) [*Neomochtherus*]

Distribution in Iran: Northern Khorasan (TSACAS 1968), Iran (no locality cited) (LEHR 1988).

Distribution outside Iran: Kazakhstan, Tajikistan, Turkmenistan, Uzbekistan (LEHR 1988).

**Genus** *Antipalus* LOEW, 1849

*Antipalus truncatus* (LOEW, 1849) [*Asilus*]

Distribution in Iran: Fars (LEHR et al. 2007).

Distribution outside Iran: Turkey.


**Genus** *Antiphrisson* LOEW, 1849

*Antiphrisson adpressus* (LOEW, 1849) [*Asilus*]


Distribution outside Iran: Azerbaijan, Egypt, Israel, Kazakhstan, Russia, Turkey.

Comments: Predator of *Bembecinus tridens* FABRICIUS (Hymenoptera: Sphecidae) and *Eristalis tenax* (LINNAEUS) (Diptera: Syrphidae) (SAGHAEI et al. 2010).

*Antiphrisson trifarius* (LOEW, 1849) [*Asilus*]

*Asilus sareptanus* LICHTWARDT, 1903; *A. thalhammeri* LICHTWARDT, 1903.


Distribution outside Iran: Albania, Azerbaijan, Belgium, Bosnia-Herzegovina, Croatia, Egypt, France, Germany, Greece, Hungary, Israel, Italy, Kazakhstan, Malta, Morocco, Romania, Russia, Slovenia, Spain, Switzerland, Syria, Tunisia, Turkey.


**Genus** *Asiloephesus* LEHR, 1992

*Asiloephesus excisus* (LOEW, 1848) [*Asilus*]

*Asilus excisus* LOEW, 1848; *Eutolmus excisus* (LOEW, 1848).

Distribution in Iran: Khorasan (BECKER & STEIN 1913).

Distribution outside Iran: Turkey.
Genus *Asilus* LINNAEUS, 1758

*Asilus barbarus* LINNAEUS, 1758

*Asilus sinis* SEGUY, 1930; *A. flavipes* ESIPENKO, 1970.

**Distribution in Iran:** Khuzestan (HAYAT et al. 2008).

**Distribution outside Iran:** Algeria, China, France, Italy, Mongolia, Morocco, Russia (Far East, Siberia), Tunisia (LEHR 1988).

**Comments:** Predator of *Sphex flavipennis* FABRICIUS (Hymenoptera: Sphecidae) (HAYAT et al. 2008).

*Asilus crabroniformis* LINNAEUS, 1758

**Distribution in Iran:** Semnan (HAYAT et al. 2008; SAKENIN et al. 2010), Tehran (SAMIN et al. 2010).

**Distribution outside Iran:** Algeria, Austria, Azerbaijan, Belgium, Bosnia-Herzegovina, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Morocco, Norway, Poland, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, The Netherlands, Turkey, United Kingdom.

**Comments:** Predator of cricket, *Gryllus desertus* (PALLAS) (Orthoptera: Gryllidae) (HAYAT et al. 2008), *Eristalinus quinquelineatus* (FABRICIUS) and *Helophilus parallelus* (HARRIS) (Diptera: Syrphidae) (SAMIN et al. 2010).

*Asilus lucidus* PALLAS in WIEDEMANN, 1818

**Distribution in Iran:** Kordestan (HAYAT et al. 2008), Iran (no locality cited) (LEHR 1988).

**Distribution outside Iran:** Russia and adjacent regions.

Genus *Astochia* BECKER, 1913

*Astochia caspica* HERMANN, 1917

*Astochia sareptana* BECKER, 1923.

**Distribution in Iran:** Iran (no locality cited) (LEHR 1988).

**Distribution outside Iran:** Afghanistan, Azerbaijan, Kazakhstan, Russia.

*Astochia metatarsata* BECKER in BECKER & STEIN, 1913

**Distribution in Iran:** Kerman (BECKER & STEIN 1913), Sistan & Baluchestan (BECKER & STEIN 1913; OLDROYD 1958), Iran (no locality cited) (ENGEL 1930).

**Comments:** Endemic to Iran.

*Astochia sodalis* (WULP, 1899) [*Itamus*]

**Distribution in Iran:** Iran (no locality cited) (ABBASSIAN-LINTZEN 1964a).

**Distribution outside Iran:** Yemen.
Genus Cerdistus LOEW, 1849

Cerdistus debilis BECKER, 1923
Distribution in Iran: East Azarbaijan (GHAHARI et al. 2010), Lorestan (SAMIN et al. 2011a), Semnan (OSTOvari & RASTEGAR 2013).
Distribution outside Iran: Greece, Turkey, former Yugoslavia.
Comments: Predator of Chrysoperla carnea (STEPHENS) (Neuroptera: Chrysopidae) (GHAHARI et al. 2010) and Bothynoderes ambigius FÅHRAEUS and Megamecus albilateralus FAUST (Coleoptera: Curculionidae) (SAMIN et al. 2011a).

Cerdistus denticulatus (LOEW, 1849) [Asilus]
Distribution in Iran: Isfahan (LEHR et al. 2007).
Distribution outside Iran: Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Turkey.
Comments: Predator of Coccinella septempunctata LINNAEUS (Coleoptera: Coccinellidae) (LEHR et al. 2007).

Cerdistus manii SCHINER, 1867
Distribution in Iran: Mazandaran (LEHR et al. 2007).
Distribution outside Iran: Armenia, Azerbaijan, Georgia, Tunisia, Turkey.
Comments: Predator of Dicranolaius bellulus GUERIN-MENEVILLE (Coleoptera: Melyridae), and Dasyleurotettix depressus (BRISOUT) (Orthoptera: Tetrigidae) (LEHR et al. 2007).

Cerdistus zelleri SCHINER, 1862
Distribution in Iran: Fars (SAMIN et al. 2011a), Khorasan (OSTOvari & RASTEGAR 2013).
Distribution outside Iran: Austria, Germany, Italy, Romania, Sicily, Turkey.
Comments: Predator of Heterotropus sabulosus PARAMONOV (Diptera: Bombylillidae) and Bombylisoma senegalense MACQUART (Diptera: Bombylillidae) (SAMIN et al. 2011a).

Genus Didysmachus LEHR, 1996

Didysmachus picipes (MEIGEN, 1820) [Asilus]
Asilus nigripes (MEGERLE in MEIGEN, 1820); A. forcipula (ZELLER, 1840); A. mixtus (LOEW, 1840); Dysmachus pendulus BECKER, 1923; Eutolmus brunnicosus (BECKER, 1923).
Distribution in Iran: Fars, Yazd (LEHR et al. 2007), West Azarbaijan (SHOEIBI & KARIMPOUR 2010).
Distribution outside Iran: Albania, Armenia, Austria, Azerbaijan, Czech Republic, Denmark, Finland, France, Georgia, Germany, Hungary, Italy, Kazakhstan, Norway, Poland, Romania, Russia (North, Central and South European territory, West Siberia), Sweden, Switzerland, The Netherlands, Turkey, Ukraine, former Yugoslavia (LEHR 1996).
Comments: Predator of *Silvius caucasicus* (OLSUFJEV) (Diptera: Tabanidae) (LEHR et al. 2007).

**Genus *Dysmachus* LOEW, 1860**

*Dysmachus bifurcus* (LOEW, 1848) [Asilus]

*Asilus varius* (MEIGEN, 1820); *A. domitor* (MEIGEN, 1830); *Dysmachus perturbans* BECKER, 1923.

**Distribution in Iran**: Mazandaran (LEHR et al. 2007).

**Distribution outside Iran**: Austria, Czech Republic, Denmark, France, Germany, Great Britain, Hungary, Poland, Romania, Switzerland, Turkey.

Comments: Predator of *Ammophila heydeni heydeni* DAHLBOM (Hymenoptera: Sphecidae) (LEHR et al. 2007).

*Dysmachus bilobus* LOEW, 1871

**Distribution in Iran**: Golestan (LEHR et al. 2007).

**Distribution outside Iran**: Armenia, Azerbaijan, Bulgaria, Georgia, Kirgyzstan, Romania, Russia (South European territory), Turkey, Ukraine, Uzbekistan, former Yugoslavia.

Comments: Predator of *Liris niger* (FABRICIUS) (Hymenoptera: Crabronidae) (LEHR et al. 2007).

*Dysmachus bimucronatus* (LOEW, 1854) [Lophonotus]

**Distribution in Iran**: Golestan (LEHR et al. 2007).

**Distribution outside Iran**: Austria, Bulgaria, Czech Republic, France, Germany, Hungary, Italy, Kazakhstan, Romania, Russia, Turkey, Ukraine, former Yugoslavia.

Comments: Predator of *Tabanus bactrianus* OLSUFJEV (Diptera: Tabanidae) (LEHR et al. 2007).

*Dysmachus cephalenus* LOEW, 1871

**Distribution in Iran**: Fars (LEHR et al. 2007).

**Distribution outside Iran**: Albania, Bulgaria, Greece, Turkey, former Yugoslavia.

Comments: Predator of *Ammophila sabulosa sabulosa* (LINNAEUS) (Hymenoptera: Sphecidae) (LEHR et al. 2007).

*Dysmachus dasyproctus* LOEW, 1871

**Distribution in Iran**: Isfahan (LEHR et al. 2007), Khorasan (GHAHARI et al. 2008a).

**Distribution outside Iran**: Armenia, Azerbaijian, Georgia, Greece, Romania, Turkey.

Comments: This species was collected in a cotton field. Predator of *Evania hunteri* MANI, and *Brachygaster minutus* (OLIVIER) (Hymenoptera: Evaniidae) (GHAHARI et al. 2008a). Also, predator of *Tabanus bromius flavofemoratus* STROBL (Diptera: Tabanidae) (LEHR et al. 2007).
**Dysmachus fuscipennis** (MEIGEN, 1820) [Asilus]

*Asilus spiniger* (ZELLER, 1840).

**Distribution in Iran:** Fars (LEHR et al. 2007).

**Distribution outside Iran:** Albania, Azerbaijan, Bulgaria, Czech Republic, France, Georgia, Germany, Greece, Hungary, Italy, Kazahkstan, Poland, Romania, Russia (South European territory, West Siberia), Turkey, Ukraine, former Yugoslavia.

**Comments:** Predator of *Bembecinus asiaticus iranicus* SCHMID-EGGER (Hymenoptera: Crabronidae) (LEHR et al. 2007).

**Dysmachus praemorsus** (LOEW, 1854) [Lophonotus]

*Asilus nigripes* (MACQUART, 1826); *Lophonotus tridens* (EGGER, 1855); *Dysmachus foliiformis* BECKER, 1923.

**Distribution in Iran:** East Azerbaijan (SHOEIBI & KARIMPOUR 2010), Fars (LEHR et al. 2007).

**Distribution outside Iran:** Albania, Austria, Bulgaria, France, Germany, Hungary, Poland, Romania, Turkey, Ukraine, former Yugoslavia.

**Comments:** Predator of *Tabanus filipjevi* OLSUFJEV (Diptera: Tabanidae) (LEHR et al. 2007).

**Dysmachus setipyga** BECKER, 1923

**Distribution in Iran:** Mazandaran, Tehran (LEHR et al. 2007).

**Distribution outside Iran:** Turkey.

**Comments:** Predator of *Atylotus quadrifarius* (LOEW) (Diptera: Tabanidae) (LEHR et al. 2007).

**Dysmachus stylifer** (LOEW, 1854) [Lophonotus]

**Distribution in Iran:** Golestan (LEHR et al. 2007; GAHARI et al. 2008a), Semnan (NADERIAN et al. 2012).

**Distribution outside Iran:** Albania, Armenia, Austria, Azerbaijan, Bulgaria, Czech Republic, France, Georgia, Germany, Greece, Hungary, Italy, Poland, Romania, Russia (South European territory), Turkey, Ukraine, former Yugoslavia.

**Comments:** This species was collected in a cotton field. Predator of *Liris niger* (FABRICIUS) (Hymenoptera: Sphecidae) (GAHARI et al. 2008a). Also, predator of *Robineauella pseudoscorpia* (KRÄMER) (Diptera: Sarcophagidae) (LEHR et al. 2007).

**Dysmachus tricuspis** (LOEW, 1848) [Asilus]

*Dysmachus kervillei* VILLENEUVE, 1910.

**Distribution in Iran:** East Azerbaijan (SHOEIBI & KARIMPOUR 2010), Isfahan (LEHR et al. 2007).

**Distribution outside Iran:** Albania, Greece, Romania, Tunisia, Turkey.

**Comments:** Predator of *Phryxe vulgaris* (FALLÉN) (Diptera: Tachinidae) (LEHR et al. 2007). Also, an unknown species of *Dysmachus* was collected from Fars province by SAGHAEI et al. (2010) as the predator of *Sphaerophoria scripta* (LINNAEUS) (Diptera: Syrphidae).
Genus *Eccoptopus* LOEW, 1860

*Eccoptopus longitarsis* (MACQUART, 1838) [*Asilus*]

*Eccoptopus erythrogaster* LOEW, 1871; *Coelopus lucidus* (BECKER, 1907).

**Distribution in Iran**: Iran (no locality cited) (THEODOR 1980).

**Distribution outside Iran**: Algeria, Egypt, Iraq, Israel, Morocco, Tunisia.

Genus *Echthistus* LOEW, 1849

*Echthistus rufinervis* (MEIGEN, 1820) [*Asilus*]

*Asilus femoralis* (MEGERLE in MEIGEN, 1820); *Asilus flavescens* (MACQUART, 1834); *Asilus cognatus* LOEW, 1849; *Echthistus rufiventris* BECKER et al., 1903.

**Distribution in Iran**: Fars (LEHR et al. 2007).

**Distribution outside Iran**: Austria, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Israel, Kazakhstan, Poland, Romania, Russia (South European territory, West Siberia), Switzerland, Turkey, Ukraine, former Yugoslavia.

**Comments**: Predator of *Tabanus bromius* LINNAEUS (Diptera: Tabanidae) (LEHR et al. 2007).

Genus *Engelepogon* LEHR, 1992

*Engelepogon antiochiensis* (TSACAS, 1964) [*Acanthopleura*]

**Distribution in Iran**: Mazandaran (LEHR et al. 2007).

**Distribution outside Iran**: Turkey.

**Comments**: Predator of *Hybomitra erberi* (BRAUER) (Diptera: Tabanidae) (LEHR et al. 2007).

*Engelepogon brunnipes* (FABRICIUS, 1794) [*Asilus*]

*Asilus brunnipes* (FABRICIUS, 1794); *A. castanipes* (MEIGEN, 1820); *A. rufipes* (MEIGEN, 1820) (nomen nudum); *Mochterus goliath* (SCHINER, 1867).

**Distribution in Iran**: Kordestan (HAYAT et al. 2008).

**Distribution outside Iran**: Algeria, Austria, France, Greece, Italy, Morocco, Spain, Tunisia, Turkey, former Yugoslavia (LEHR 1988).

**Comments**: Predator of *Bembix bicolor* RADOSZKOWSKI (Hymenoptera: Sphecidae) (HAYAT et al. 2008).

*Engelepogon cingulifer* (BECKER, 1913) [*Machimus*]

**Distribution in Iran**: East Azerbaidjan, West Azerbaidjan (SHOEIBI & KARIMPOUR 2010), Khorasan, Sistan & Baluchestan (BECKER & STEIN 1913), Iran (no locality cited) (ENGEL 1930).

**Distribution outside Iran**: Azerbaijan, Kazakhstan, former Soviet Middle Asia, former Transcaucas Republics (LEHR 1988).
**Engelepon idiorrhytmicus** (JANSSSEN, 1960) [*Acanthopleura*]


*Distribution outside Iran*: Greece, former Transcaucasus Republics, Turkey (LEHR 1988).

*Comments*: This species was collected in an *Amygdalus scoparia* forest, predator of *Phycus* sp. (Diptera: Therevidae) (SAGHAEI et al. 2010).

**Genus Erax SCOPOLI, 1763**

**Erax barbatus** SCOPOLI, 1763

*Asilus frontalis* (OLIVIER, 1789); *A. punctatus* (MEIGEN, 1804).

*Distribution in Iran*: Guilan (SAKENIN et al. 2008a), Mazandaran (SAKENIN et al. 2008b; GHAHARI et al. 2009), Tehran (SAMIN et al. 2010).

*Distribution outside Iran*: Bulgaria, Czech Republic, France, Germany, Greece, Poland, Romania, Sweden, Russia (South European territory, former Transcaucasus Republics), Turkey, former Yugoslavia.


**Erax grootaerti** TOMASOVIC, 2002

*Distribution in Iran*: Fars (TOMASOVIC 2002; TOMASOVIC & SAGHAEI 2009).

*Comments*: Endemic to Iran.

**Erax nubeculus** (LOEW, 1848) [*Asilus*]

*Distribution in Iran*: Isfahan (GHAHARI et al. 2010), Khorasan (OSTOVARI & RASTEGAR 2013).

*Distribution outside Iran*: Turkey (LEHR 1988).

*Comments*: Predator of *Chrysoperla iranica* HÖLZEL (Neuroptera: Chrysopidae) (GHAHARI et al. 2010).

**Erax sedulus** RICHTER, 1963

*Distribution in Iran*: West Azarbaijan (SHOEIBI & KARIMPOUR 2010).

*Distribution outside Iran*: Azerbaijan (LEHR 1988).

**Erax tenuicornis** (LOEW, 1848) [*Asilus*]

*Distribution in Iran*: East Azarbaijan (SAKENIN et al. 2008a), Fars (SAMIN et al. 2011a).

*Distribution outside Iran*: Greece, Turkey.

Genus *Erebunus* RICHTER, 1966

*Erebunus farinosus* (BECKER in BECKER & STEIN, 1913) [*Epitriptus*]

Argillemisca transcaspica (LEHR, 1964); *Eremisca transcaspica* LEHR, 1964; *E. transcaspica pilosa* LEHR, 1964.

**Distribution in Iran**: Khorasan (BECKER & STEIN 1913), Semnan (SAKENIN et al. 2010).

**Distribution outside Iran**: Kazakhstan.

**Comments**: Predator of *Ectemnius rubicola* (DUFOUR & PERRIS) (Hymenoptera: Sphecidae) (SAKENIN et al. 2010).

Genus *Eremisca* HULL, 1962

*Eremisca heleni* (EFFLATOUN, 1934) [*Cerdistus*]

**Distribution in Iran**: Hormozgan, Sistan & Baluchestan (ABBASSIAN-LINTZEN 1964b), Iran (no locality cited) (THEODOR 1980).

**Distribution outside Iran**: Egypt, Israel, Morocco, Oman.

**Comments**: On sand dunes; in evening attracted by light (ABBASSIAN-LINTZEN 1964b).

*Eremisca shahgudiani* ABBASSIAN-LINTZEN, 1964

*Eremisca araratica* RICHTER, 1966.

**Distribution in Iran**: Khuzestan (ABBASSIAN-LINTZEN 1964b).

**Distribution outside Iran**: Armenia, Azerbaijan.

**Comments**: This species was found among tamarisk and oleander bushes on sandy soil on the river bank and between shrubs on light soil (ABBASSIAN-LINTZEN 1964b).

Genus *Esatanas* LEHR, 1986

*Esatanas shah* (RONDANI, 1873) [*Proctocanthus*]

**Distribution in Iran**: Type-locality: "Persia sep."-- Iran (no locality cited) (ENGEL 1930).

**Distribution outside Iran**: Kazakhstan, Turkmenistan, Uzbekistan (LEHR 1988).

Genus *Eutolmus* LOEW, 1848

*Eutolmus calopus* (LOEW, 1848) [*Asilus*]

**Distribution in Iran**: Golestan (LEHR et al. 2007).

**Distribution outside Iran**: Armenia, Azerbaijan, Georgia, Greece, Turkey, former Yugoslavia.

**Comments**: Predator of *Cerceris tuberculata* VILLERS (Hymenoptera: Crabronidae) (LEHR et al. 2007).
**Eutolmus facialis** (LOEW, 1848) [*Asilus*]

**Distribution in Iran**: East Azarbaijan (SHOEIBI & KARIMPOUR 2010), Tehran (LEHR et al. 2007).

**Distribution outside Iran**: Israel, Palestine, Turkey, former Yugoslavia (LEHR et al. 2007).

**Comments**: Predator of *Dasyrhamphis umbrinus* (MEIGEN) (Diptera: Tachinidae) (SHOEIBI & KARIMPOUR 2010).

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**Eutolmus immaculatus** LOEW, 1871

*Eutolmus implacidus* LOEW, 1871.

**Distribution in Iran**: Golestan (SAKENIN et al. 2008a), Khorasan (SAMIN et al. 2011a), Mazandaran (SAKENIN et al. 2008a, b).

**Distribution outside Iran**: Germany, Kazakhstan, Russia and adjacent regions (Soviet Middle Asia), Turkey.

**Comments**: Predator of *Bombus rehbinderi* VOGT, and *Psithyrus (Psithyrus) campestris* (PANZER) (Hymenoptera: Apidae) (SAMIN et al. 2011a).

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**Eutolmus mordax** (LOEW, 1848) [*Asilus*]

*Asilus periscelis* (LOEW, 1848).

**Distribution in Iran**: Fars (LEHR et al. 2007).

**Distribution outside Iran**: Greece, Romania, Russia, (Central European territory), Tunisia, Turkey.

**Comments**: Predator of *Palarus variegatus* (FABRICIUS) (Hymenoptera: Crabronidae) (LEHR et al. 2007).

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**Eutolmus parricida** (LOEW, 1848) [*Asilus*]

**Distribution in Iran**: East Azarbaijan, West Azarbaijan (SHOEIBI & KARIMPOUR 2010), Mazandaran (LEHR et al. 2007; HAYAT et al. 2008), Semnan (SAKENIN et al. 2010).

**Distribution outside Iran**: Afghanistan, Armenia, Azerbaijan, Georgia, Turkey.

**Comments**: Predator of *Ramonda spathulata* (FALLÉN) (Diptera: Tachinidae) (LEHR et al. 2007) and *Sphex oxianus* GUSSAKOVSKY (Hymenoptera: Sphecidae) (HAYAT et al. 2008).

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**Eutolmus rufibarbis** (MEIGEN, 1820) [*Asilus*]

*Asilus melampodius* (ZELLER, 1840); *A. forcipatus v. major* FALLÉN, 1814.

**Distribution in Iran**: Khorasan (OSTOVAR & RASTEGAR 2013), Zanjan (GHAHARI et al. 2009; SAMIN et al. 2011a, b, c).

**Distribution outside Iran**: Austria, Belgium, Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Japan, Korea, Poland, Romania, Russia and adjacent regions (Central European territory, East Siberia, Far East,
North European territory, South European territory, West Siberia), Sweden, Switzerland, The Netherlands, Turkey, United Kingdom, former Yugoslavia.

**Comments:** Predator of *Philonthus cruentatus* (Gmelin) (Coleoptera: Staphylinidae) (Samin et al. 2011b, c).

**Genus Machimus Loew, 1849**

*Machimus annulipes* (Brullé, 1832) [Asilus]

*Asilus basalis* Loew, 1849; *A. cerdo* Gerstaecker, 1861.

**Distribution in Iran:** Fars (Saghaei et al. 2010), Guilan (Ghahari et al. 2007b, 2009), Kermanshah, Semnan (Hayat et al. 2008), Mazandaran (Ghahari et al. 2007b, 2008b).

**Distribution outside Iran:** Albania, Azerbaijan, Bosnia-Herzegovina, Bulgaria, Croatia, Great Britain, Greece, Hungary, Israel, Poland, Romania, Slovenia, Switzerland, Turkey.

**Comments:** This species was collected in a rice field (Ghahari et al. 2007b, 2008b) and resting on *Trifolium pratensis* (Leguminosae) (Ghahari et al. 2007b), also in a wheat field predator of *Psammotettix* sp. (Hemiptera: Cicadellidae) (Saghaei et al. 2010). Predator of *Sarcophaga* (Liopygia) argyrostoma Robineau-Desvoidy and *Sarcophaga* (Sarcophaga) lehmanni Muller (Diptera: Sarcophagidae) (Hayat et al. 2008).

*Machimus aradensis* Theodor, 1980

**Distribution in Iran:** Fars (Saghaei et al. 2008, 2009, 2010).

**Distribution outside Iran:** Israel, Palestine.

**Comments:** Predator of *Ammophila sabulosa* (Linnaeus) (Hymenoptera: Sphecidae) (Saghaei et al. 2010).

*Machimus armipes* Becker in Becker & Stein, 1913

**Distribution in Iran:** Golestan, Mazandaran (Ghahari et al. 2007b), Kerman, Sistan & Baluchestan (Becker & Stein 1913), Iran (no locality cited) (Engel 1930).

**Distribution outside Iran:** Kyrgyzstan, Tajikistan (Lehr 1988).

**Comments:** This species was collected resting on *Rubus hyrcanus* (Rosaceae), and *Xanthium pensylvanicum* (Compositeae) (Ghahari et al. 2007b).

*Machimus caliginosus* (Meigen, 1820) [Asilus]

*Asilus apicatus* (Loew, 1848); *A. lugens* (Loew, 1849).

**Distribution in Iran:** Fars (Sakenin et al. 2008b), Lorestan (Samin et al. 2011a), Mazandaran (Sakenin et al. 2008a).

**Distribution outside Iran:** Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Greece, Italy, Turkey, former Yugoslavia.
Comments: Predator of *Arge turcomana* GUSSAKOVSKIJ (Hymenoptera:Argidae) (SAMIN et al. 2011a), and *Xylocopa* (*Xylocopa*) *valga* GERSTÄCKER (Hymenoptera:Anthophoridae) (SAKENIN et al. 2008a).

*Machimus cyanopus* (LOEW, 1849) [*Asilus*]
Distribution in Iran: East Azarbaijan (SAKENIN et al. 2008a), Golestan (SAMIN et al. 2011d), Semnan (SAKENIN et al. 2010).
Distribution outside Iran: Albania, Austria, Bulgaria, France, Germany, Greece, Hungary, Italy, Romania, Switzerland, Turkey, former Yugoslavia.

*Machimus elegans* (LOEW, 1849) [*Asilus*]
Distribution in Iran: Isfahan (LEHR et al. 2007).
Distribution outside Iran: Spain, Turkey.
Comments: Predator of *Cylindrothecum ibericum* (VILLENEUVE) (Diptera:Sarcophagidae) (LEHR et al. 2007).

*Machimus gratiosus* LOEW, 1871
Distribution in Iran: Chaharmahal & Bakhtiari (LEHR et al. 2007).
Distribution outside Iran: Turkey.
Comments: Predator of *Hybomitra peculiaris* (SZILADY) (Diptera:Tabanidae) (LEHR et al. 2007).

*Machimus modestus* (LOEW, 1849) [*Asilus*]
Distribution in Iran: Golestan (LEHR et al. 2007).
Distribution outside Iran: Bulgaria, Hungary, Romania, Turkey, former Yugoslavia.
Comments: Predator of *Myolepta luteola* (GMELIN), and *Spiximorpha worelli* (BRÄDESCU) (Diptera:Syrphidae) (LEHR et al. 2007).

*Machimus nahalalensis* THEODOR, 1980
Distribution outside Iran: Israel.
Comments: Predator of *Syntomon* sp. (Diptera:Dolichopodidae) (SAGHAEI et al. 2010).

*Machimus nevadensis* (STROBL in CZERNY & STROBL, 1909) [*Asilus*]
Distribution in Iran: Yazd (HAYAT et al. 2008).
Distribution outside Iran: Spain (LEHR 1988).

Comments: Predator of *Ceceris tuberculata* VILLERS (Hymenoptera: Sphecidae) (HAYAT et al. 2008).

**Machimus rudis** BECKER, 1923

Distribution in Iran: Fars, Yazd (LEHR et al. 2007).

Distribution outside Iran: Turkey.

Comments: Predator of *Calliphora vicina* (ROBINEAU-DESVOIDY) (Diptera: Calliphoridae) and *Tetrix subulata* (LINNÆUS) (Orthoptera: Tettigidae) (LEHR et al. 2007).

**Machimus rusticus** (MEIGEN, 1820) [*Asilus*]

*Asilus genualis* ZELLER, 1840; *A. obscurus* MEIGEN, 1820.


Distribution outside Iran: Albania, Austria, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, France, Germany, Great Britain, Greece, Italy, Kazakhstan, Poland, Romania, Slovakia, Slovenia, Spain, Switzerland, The Netherlands, Turkey, United Kingdom.

Comments: This species was collected in a rice field (GHAHARI et al. 2007b, 2008b), and resting on *Polygonum convolvulus* (Polygonaceae) (GHAHARI et al. 2007b), in a cotton field. Predator of *Systropha curvicornis* (SCOPOLI) (Hymenoptera: Halictidae) (GHAHARI et al. 2008a). Predator of *Papilio demoleus demoleus* LINNÆUS (Lepidoptera: Papilionidae) (HAYAT et al. 2008), *Conophorus glaucescens* (LOEW) and *Usia* (*Usia*) *calva* LOEW (Diptera: Bombyliidae) (SAMIN et al. 2010), *Delta unguiculatum* (VILLERS) (Hymenoptera: Vespidae) (SAGHAEI et al. 2010).

**Machimus setibarbus** (LOEW, 1849) [*Asilus*]

*Asilus intermedius* (HOLMGREN in ZETTERSTEDT, 1852); *Machimus setiventris* ENGEL, 1928.

Distribution in Iran: Isfahan (LEHR et al. 2007).

Distribution outside Iran: Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Greece, Israel, Italy, Poland, Romania, Russia (Central European territory), Spain, Sweden, Tunisia, Turkey, former Yugoslavia.

Comments: Predator of *Tachina magnicornis* (ZETTERSTEDT) (Diptera: Tachinidae) (LEHR et al. 2007).

**Machimus thoracius** (LOEW, 1849) [*Asilus*]

Distribution in Iran: Kerman, Sistan & Baluchestan (BECKER & STEIN 1913), Khuzestan (GHAHARI et al. 2007b), Mazandaran (GHAHARI et al. 2007b, 2009).

Distribution outside Iran: Hungary, Turkey.

Comments: This species was collected in a rice field, and also resting on *Hibiscus syriacus* (Malvaceae) (GHAHARI et al. 2007b).
Genus *Machiremisca* **LEHR, 1996**

*Machiremisca decipiens* (**WIEDEMANN in MEIGEN, 1820**) [**Asilus**]

*Machiremisca decipiens* (**WIEDEMANN in MEIGEN, 1820**) (comb. n. in **TOMASOVIC et. al. 2003**).

**Distribution in Iran**: Isfahan (**HAYAT et al. 2008**), Semnan (**SAKENIN et al. 2010**).

**Distribution outside Iran**: Italy, Portugal, Spain (**LEHR 1988**).

**Comments**: Predator of *Ancistrocerus auctus* **FABRICIUS** (Hymenoptera: Vespidae) (**HAYAT et al. 2008**).

Genus *Neoitamus* **OSTEN SACKEN, 1878**

*Neoitamus cyanurus* (**LOEW, 1849**) [**Itamus**]

*Neoitamus cyanurus* (**LOEW, 1849**); *A. niger* (**DE GEER, 1776**); *A. tabidus* (**MEIGEN, 1820**); *A. tipuloides* (**HARRIS, 1776**); *A. tibialis* (**FALLÉN, 1814**); *A. cyanurrus* (**SHI, 1992**).

**Distribution in Iran**: Mazandaran (**HAYAT et al. 2008**), Tehran (**SAMIN et al. 2010**).

**Distribution outside Iran**: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Luxembourg, Poland, Romania, Russia, Sweden, Switzerland, Taiwan, The Netherlands, Turkey.

**Comments**: Predator of *Silvia ochraceus* (**LOEW**) (Diptera: Tabanidae) (**HAYAT et al. 2008**).

*Neoitamus senectus* **RICHTER, 1963**

*Neoitamus senectus* (**RICHTER, 1963**).

**Distribution in Iran**: Tehran (**SAMIN et al. 2010**), West Azarbaijan (**HASBENLI & BAYRAKDAAR 2006**).

**Distribution outside Iran**: Armenia, Azerbaijan, Georgia, Moldavia, Russia, former Transcaucasus Republics, Turkey, Ukraine.

**Comments**: Predator of *Anastoechus miscens* **WALKER** (Diptera: Bombyliidae) (**SAMIN et al. 2010**).

Genus *Neomochtherus* **OSTEN SACKEN, 1878**

*Neomochtherus acanthodes* (**LOEW, 1849**) [**Asilus**]

**Distribution in Iran**: East Azarbaijan (**SAKENIN et al. 2008b**).

**Distribution outside Iran**: Former Transcaucasus Republics, Turkey.

*Neomochtherus albicans* (**LOEW, 1849**) [**Asilus**]

**Distribution in Iran**: Guilan (**SAKENIN et al. 2008a**), Tehran (**SAMIN et al. 2011c**), West Azarbaijan (**SAMIN et al. 2011b**).
Distribution outside Iran: Turkey.

Comments: Predator of Sterictiphora furcata (VILLERS) (Hymenoptera: Argidae) (SAKENIN et al. 2008a) and Philonthus varians (PAYKULL) (Coleoptera: Staphylinidae) (SAMIN et al. 2011b, c).

Genus Oldroydiana LEHR, 1996

Oldroydiana calceatus (OLDROYD, 1958) [Dsymachus]

Distribution in Iran: Khuzestan (OLDROYD 1958).

Comments: Endemic to Iran.

Genus Paramochtherus THEODOR, 1980

Paramochtherus persicus TOMASOVIC & SAGHAEI, 2009

Distribution in Iran: Fars (TOMASOVIC & SAGHAEI 2009).

Comments: Endemic to Iran.

Genus Philonomicus LOEW, 1849

Philonomicus albiceps (MEIGEN, 1820) [Asilus]

Asilus canescens WIDEMANN in MEIGEN, 1820; A. albibarbus ZELLER, 1840 (error); A. nudus (LOEW, 1840); Philonomicus domesticus RICARDO, 1920; P. elutus LOEW, 1871; Cerdistus pulcher BECKER, 1923; C. marinus BECKER, 1923; C. orientalis ESIPENKO, 1969.

Distribution in Iran: Fars (SAGHAEI et al. 2010; TOMASOVIC & SAGHAEI 2009), Guilan, Northern Iran (RICARDO 1920), Kordestan (HAYAT et al. 2008), Mazandaran (GHAHARI et al. 2007b, 2008b), Tehran (SAMIN et al. 2010).

Distribution outside Iran: Albania, Austria, Azerbaijian, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Greece, Hungary, Iceland, Ireland, Israel, Italy, Liechtenstein, Luxembourg, Malta, Mongolia, Norway, Poland, Portugal, Romania, Russia (East Siberia, Far East), Slovakia, Slovenia, Spain, Sweden, Switzerland, The Netherlands, Turkey, United Kingdom.

Comments: This species was collected in a rice field (GHAHARI et al. 2008b), and also resting on Amaranthus retroflexus (Amaranthaceae) (GHAHARI et al. 2007b). Predator of house fly, Musca domestica LINNAEUS (Diptera: Muscidae) (RICARDO 1920), Mellinus crabroneus (THUNBERG) (Hymenoptera: Sphecidae) (SAMIN et al. 2010), Anthidium florentinum (FABRICIUS) (Hymenoptera: Megachilidae) (SAGHAEI et al. 2010).

Genus Polyphonius LOEW, 1848

Polyphonius laevigatus LOEW, 1848

Distribution in Iran: Khuzestan (OLDROYD 1958), West Azarbaijan (SHOEIBI & KARIMPOUR 2010).

Distribution outside Iran: Albania, Azerbaijan, Greece, Palestine, Syria, Turkey.
Genus *Polysarca* SCHINER, 1866

*Polysarca unguulata* (WIEDEMANN, 1818) [*Laphria*]  
*Asilus unguulata* PALLAS.

**Distribution in Iran**: Guilan (GHAHARI et al. 2007b), Semnan (OSTOVARI & RASTEGAR 2013).

**Distribution outside Iran**: Central and South European territory, Kazakhstan, Russia, Soviet Middle Asia, Turkey, Turkmenistan, Uzbekistan.

**Comments**: This species was collected in a rice field (GHAHARI et al. 2007b).

Genus *Reminasus* LEHR, 1979

*Reminasus ephippium* (MACQUART, 1855) [*Asilus*]  
*Asilus pulcher* RICARDO, 1922.

**Distribution in Iran**: Sistan & Baluchestan (BECKER & STEIN 1913).

**Distribution outside Iran**: China, India, Mongolia, Sri Lanka.

Genus *Satanas* JACOBSON, 1908

*Satanas gigas* (EVERSMANN, 1855)  
*Saropogon gigas* BECKER in BECKER & STEIN, 1913.

**Distribution in Iran**: Fars (SAGHAEI et al. 2008, 2009, 2010; TOMASOVIC & SAGHAEI 2009), Kerman, Khorasan (BECKER & STEIN 1913), Mazandaran (GHAHARI et al. 2007b), Semnan (HAYAT et al. 2008; SAKENIN et al. 2010), Sistan & Baluchestan (BECKER & STEIN 1913; OLDROYD 1958), Iran (no locality cited) (ENGEL 1930).

**Distribution outside Iran**: Algeria, Azerbaijan, China, Egypt, Greece, Israel, Kazakhstan, Libya, Mongolia, Romania, Russia, Turkey.

**Comments**: This species was collected in a rice field (GHAHARI et al. 2007b). Predator of *Podalonia hirsuta hirsuta* (SCOPOLI) (Hymenoptera: Sphecidae) (HAYAT et al. 2008), *Bryodema* sp. (Orthoptera: Acrididae) and *Truxalis* sp. (Orthoptera: Acrididae) (SAGHAEI et al. 2010).

Genus *Tolmerus* LOEW, 1849 [*Asilus*]

*Tolmerus atricapillus* (FALLÉN, 1814)  
*Asilus opacus* (MEIGEN, 1820); *A. calceatus* (MEIGEN, 1820); *A. plebeius* (MEIGEN, 1820); *A. rufimanus* (MEIGEN, 1820); *A. subulatus* (LOEW, 1840); *A. bicornis* (ZELLER, 1840).

**Distribution in Iran**: Fars (SAKENIN et al. 2008b), Isfahan (SAKENIN et al. 2008a; GHAHARI et al. 2009), Khorasan (SAMIN et al. 2011a).

**Distribution outside Iran**: Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Italy, Kazakhstan, Luxembourg, Norway, Poland, Romania, Russia and adjacent regions (Central European territory, East Siberia, Far East, North European territory, South European territory, West Siberia), Sweden, Switzerland, The Netherlands, United Kingdom.

**Comments**: Predator of *Calameuta grombelskii* (JAKOLEV) (Hymenoptera: Cephidae) (SAKENIN et al. 2008a).
**Tolmerus cingulatus** (Fabricius, 1781) [Asilus]

_Epitriptus cingulatus_ (Fabricius, 1781); _Asilus annulatus_ Macquart, 1826; _A. striatus_ Meigen, 1820; _A. pictipes_ Loew, 1848; _A. maculosus_ Harris, 1776.

**Distribution in Iran:** Khorasan (Becker & Stein 1913), Tehran (Samin et al. 2010), Iran (no locality cited) (Engel 1930).

**Distribution outside Iran:** Austria, Azerbaijan, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Norway, Poland, Romania, Russia, Slovakia, Slovenia, Sweden, Switzerland, The Netherlands, Turkey, United Kingdom.

**Tolmerus facialis** Becker in Becker & Stein, 1913

**Distribution in Iran:** Sistan & Baluchestan (Becker & Stein 1913).

**Comments:** Endemic to Iran.

**Tolmerus fuscus** (Macquart, 1839) [Asilus]

**Distribution in Iran:** Ardabil (Sakenin et al. 2011), East Azarbaijan (Sakenin et al. 2009).

**Distribution outside Iran:** South European Territory of USSR, Spain (Canary Islands and Madeira), Turkey.

**Comments:** Predator of _Protaetia excavaata_ Gomy & Percheron (Coleoptera: Scarabaeidae) (Sakenin et al. 2009).

**Tolmerus richterae** Lehr, 1981

**Distribution in Iran:** East Azarbaijan (Sakenin et al. 2008b).

**Distribution outside Iran:** Armenia, former Transcaucasus Republics.

**Tolmerus tesselatus** (Loew, 1849) [Asilus]

**Distribution in Iran:** Hamadan (Samin et al. 2011a), Khuzestan (Sakenin et al. 2008a; Gahhari et al. 2009), Zanjan (Samin et al. 2011b, c).

**Distribution outside Iran:** Italy, Romania, Turkey.

**Comments:** Predator of _Andrena haemorrhoa_ (Fabricius) (Hymenoptera: Andrenidae) (Samin et al. 2011a), _Scolia_ (Scolia) _fuciformis_ (Scopoli) (Hymenoptera: Scoliidae) (Sakenin et al. 2008a) and _Lathrobium pallidipenne_ Hochhuth (Coleoptera: Staphylinidae) (Samin et al. 2011b, c).

**Tolmerus tivonensis** (Theodor, 1980) [Machimus (Tolmerus)]

**Distribution in Iran:** Golestan (Gahhari et al. 2007a).

**Distribution outside Iran:** Israel, Turkey.

**Comments:** Predator of _Hyperaspis femorata_ (Motschulsky) (Coleoptera: Coccinellidae) (Gahhari et al. 2007a).

**Genus Trichomachimus** Engel, 1934

**Trichomachimus curtusus** Lehr, 1989

**Distribution in Iran:** East Azarbaijan (Sakenin et al. 2008a), Isfahan
(GHAHARI et al. 2010), Kerman (SAMIN et al. 2011a), Semnan (OSTOVARI & RASTEGAR 2013).

Distribution outside Iran: Caucasus, Russia and adjacent countries.

Comments: Predator of *Chrysoperla carnea* (STEPHENS) (Neuroptera: Chrysopidae) (GHAHARI et al. 2010), *Bombylius* (Bombylius) *cinerascens* MIKAN (Diptera: Bombyllidae) (SAMIN et al. 2011a) and *Phyrrhalta* (Galerucella) *tenella* (LINNAEUS) (Coleoptera: Chrysomelidae) (SAKENIN et al. 2008a).

**Trichomachimus klapperichi** MOUCHA & HRADSKÝ, 1964

Distribution in Iran: Golestan (GHAHARI et al. 2007b), Khorasan (OSTOVARI & RASTEGAR 2013).

Distribution outside Iran: Afghanistan.

Comments: This species was collected resting on *Corchorus olitorius* (Tilliaceae) (GHAHARI et al. 2007b).

**Trichomachimus oldroydi** MOUCHA & HRADSKÝ, 1964

Distribution in Iran: Guilan (GHAHARI et al. 2007b), Khorasan (OSTOVARI & RASTEGAR 2013).

Distribution outside Iran: Afghanistan.

Comments: This species was collected in a rice field (GHAHARI et al. 2007b).

**Trichomachimus pubescens** MOUCHA & HRADSKÝ, 1964 [*Machimus*]

Distribution in Iran: Fars (SAKENIN et al. 2008b), Tehran (SAMIN et al. 2010).

Distribution outside Iran: Afghanistan, China, India, Tibet.


**Genus Turka** OZDIKMEN, 2008

*Turka cervinus* (LOEW, 1856) [*Epitriptus*]

*Epitriptus cervinus* LOEW, 1856; *Epitriptus cretaceus* BECKER in BECKER & STEIN, 1913.

Distribution in Iran: (no locality cited) (BECKER & STEIN 1913; ENGEL 1930).

Distribution outside Iran: Iraq, Kazakhstan, Kirgyzstan, North Africa (incl. Morocco, Tunisia, Egypt), Russia, Turkey (ÖZDIKMEN 2008).

**Subfamily Atomicsinae** HERMANN, 1912

**Genus Amathomyia** HERMANN, 1912

*Amathomyia persiana* HERMANN, 1912

*Amathomyia persiana* BECKER in BECKER & STEIN, 1913.
Distribution in Iran: Sistan & Baluchestan (BECKER & STEIN 1913), Iran (no locality cited) (ENGE 1930).

Distribution outside Iran: Tunisia, Uzbekistan.

Genus *Loewinella* HERMANN, 1912

*Loewinella viriscens* (LOEW, 1871) [*Atomosia*

Distribution in Iran: Khuzestan (OLDROYD 1958), Tehran (SAMIN et al. 2010).

Distribution outside Iran: China, Mongolia, Russia and adjacent regions.

Subfamily *Dasypogoninae* MACQUART, 1838

Tribe *Isopogonini* HARDY, 1948

Genus *Leptarthrus* STEPHENS, 1829

*Leptarthrus brevirostris* (MEIGEN, 1804) [*Dioctria*

Distribution in Iran: Golestan, Mazandaran (GHAHARI et al. 2007a).

Distribution outside Iran: Albania, Austria, Bulgaria, Czech Republic, Germany, Denmark, France, Great Britain, Italy, Romania, Russia (Central European territory), Slovakia, Sweden, Turkey, former Yugoslavia.

Comments: Predator of *Volucella inanis* (LINNAEUS) (Diptera: Syrphidae) and *Polistes dominulus* (CHRIST) (Hymenoptera: Vespidae) (GHAHARI et al. 2007a).

Genus *Paraphamartania* ENGEL, 1930

*Paraphamartania syriaca* (SCHINER, 1867) [*Aphamartania*

Distribution in Iran: Khorasan (OSTOVARI & RASTEGAR 2013), Semnan, Tehran (GHAHARI et al. 2007a).

Distribution outside Iran: Greece, Israel, Kazakhstan, Syria, Turkey.

Comments: Predator of *Chrysolina coerulans* Scribe (Coleoptera: Chrysomelidae) and *Thomisus onustus* (WALCKENAER) (Araneae: Thomisidae) (GHAHARI et al. 2007a).

Genus *Pegesimallus* LOEW, 1858

*Pegesimallus mesasiaticus* (LEHR, 1958) [*Neolaparus*

Distribution in Iran: Ardabil (SAKENIN et al. 2011), East Azarbaijan (SAKENIN et al. 2009), Mazandaran (SAKENIN et al. 2008a).

Distribution outside Iran: Armenia, China, Kazakhstan (incl. Turkistan), Mongolia, Soviet Middle Asia, former Transcaucasia Republics.

Comments: Predator of *Dorcadion (Autodorcadion) talyshense* GANGLBAUER (Coleoptera: Cerambycidae) (SAKENIN et al. 2008a) and *Schizoprymmus terebralis* (ŠNOFLÁK) (Hymenoptera: Braconidae) (SAKENIN et al. 2009).
**Pegesimallus volcatus** (WALKER, 1849) [Dasypogon]

*Dasypogon hypsaon* WALKER, 1849; *D. cerco* WALKER, 1849; *Cenopogon bifidus* WULP, 1898.

**Distribution in Iran**: Semnan (SAKENIN et al. 2010; OSTOVARI & RASTEGAR 2013).

**Distribution outside Iran**: China, India, Indonesia, Java, Myanmar, Pakistan, Taiwan.

**Genus Rhabdogaster** LOEW, 1858

*Rhabdogaster cinerascens* (WULP, 1899) [Psilinus]

*Psilinus cinerascens* WULP, 1899.

**Distribution in Iran**: Sistan & Baluchestan (OLDROYD 1958).

**Distribution outside Iran**: Kenya, Yemen.

**Genus Theurgus** RICHTER, 1966

*Theurgus kerzneri* LEHR, 1974

**Distribution in Iran**: Isfahan (GHAHARI et al. 2010), Semnan (Samin et al. 2011a).

**Distribution outside Iran**: Mongolia, Russia and adjacent regions.

**Comments**: Predator of *Sympherobius pygmaeus* (RAMBUR) (Neuroptera: Hemerobiidae) (GHAHARI et al. 2010), *Labidostomis senicula* KRAATZ (Coleoptera: Chrysomelidae) and *Psylliodesbrisouti* BEDEL (Coleoptera: Chrysomelidae) (SAMIN et al. 2011a).

**Tribe Dasypogonini** MACQUART, 1838

**Genus Dasypogon** MEIGEN, 1803

*Dasypogon diadema* (FABRICIUS, 1781) [Asilus]

*Asilus analis* FABRICIUS, 1794; *A. liburnicus* GERMAR, 1817; *A. nervosus* MEIGEN, 1804; *A. punctatus* FABRICIUS, 1781; *A. bohemicus* PREYSSLER, 1790; *A. cylindrica* FABRICIUS, 1794; *A. fasciatus* MEIGEN, 1820; *A. rubidus* HERMANN, 1906; *A. umbrosus* BRULLE, 1832; *Selidopogon sicanus* COSTA, 1853; *S. diadema* FABRICIUS, 1781.

**Distribution in Iran**: East Azarbaijan, Fars, Golestan, Khuzestan, Mazandaran, Tehran (ABBASSIAN-LINTZEN 1964a), Iran (no locality cited) (THEODOR 1980).

**Distribution outside Iran**: Albania, Austria, Azerbaijan, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Italy, Morocco, Poland, Romania, Russia, Slovakia, Slovenia, Spain, Switzerland, former Transcaucasus Republics, Turkey, United Kingdom.

**Comments**: This species was always closely associated with trees and bushes (ABBASSIAN-LINTZEN 1964a).
**Dasypogon irinelaev** WEINBERG, 1986

*Distribution in Iran:* Fars (SAGHAEI et al. 2010), West Azarbaijan (HAYAT et al. 2008; SHOEIBI & KARIMPOUR 2010).

*Distribution outside Iran:* Azerbaijan, Turkey.

*Comments:* Predator of *Chalybion (Chalybion) flebile* (LEPELLETIER de SAINT-FARGEU) (Hymenoptera: Sphecidae) (HAYAT et al. 2008) and *Delta dimidiatipenne* (SAUSSURE) (Hymenoptera: Vespidae) (SAGHAEI et al. 2010).

**Dasypogon magisi** TOMASOVIC, 1999

*Dasypogon variabilis* BRULLÉ, 1832 (ENGEL, 1930; LEHR, 1988; WEINBERG, 1991).


*Distribution outside Iran:* Iraq.

*Comments:* This species was collected in an *Amygdalus scoparia* forest. Predator of *Gryllus bimaculatus* De GEER (Orthoptera: Gryllidae), *Xylocopa pubescens* SPINOLA (Hymenoptera: Apidae), *Megascolia maculata maculata* (Hymenoptera: Scoliidae) (SAGHAEI et al. 2010).

**Dasypogon octonotatus** LOEW, 1869

*Dasypogon variabilis* BRULLÉ, 1832 (ENGEL, 1930; WEINBERG, 1991), subspecies of *diadema* (LEHR, 1988).

*Distribution in Iran:* East Azarbaijan (HAYAT et al. 2008), Khuzestan (GHAHARI et al. 2007b), Mazandaran (GHAHARI et al. 2007b, 2008b, 2009).

*Distribution outside Iran:* Azerbaijan, Greece, Kazakhstan, Mongolia, Romania, Russia, Turkey, West Siberia.

*Comments:* This species was collected in a rice field (GHAHARI et al. 2007b, 2008b), resting on *Ricinus communis* (Euphorbiaceae) (GHAHARI et al. 2007b). Predator of *Katamenes sichelii* (GIORDANI SOIKA) and *Vespa crabro crabro* LINNAEUS (Hymenoptera: Vespidae) (HAYAT et al. 2008).

**Genus Saropogon** LOEW, 1847

**Saropogon albicans** JANSSENS, 1961

*Distribution in Iran:* Fars (SAKENIN et al. 2008b), Kermanshah (SAMIN et al. 2011a).

*Distribution outside Iran:* Iraq.

*Comments:* Predator of *Cladius pectinicornis* (GEOFFROY) and *Tenthredo (Eurogaster) obsoleta* KLUG (Hymenoptera: Tenthredinidae) (SAMIN et al. 2011a).

**Saropogon alternatus** LOEW, 1873

*Saropogon alternans* LOEW, 1873.

*Distribution in Iran:* East Azarbaijan (ABBASSIAN-LINTZEN 1964a), Sistan & Baluchestan (OLDROYD 1958).

*Distribution outside Iran:* Uzbekistan.
Saropogon bijani ABBASSIAN-LINTZEN, 1964
Distribution in Iran: Khuzestan (ABBASSIAN-LINTZEN 1964a).
Comments: Endemic to Iran.

Saropogon clausus BECKER, 1906
Saropogon vosseleri BECKER, 1906.
Distribution in Iran: Khorasan, Sistan & Baluchestan (BECKER & STEIN 1913).
Distribution outside Iran: Algeria, Morocco, Tunisia.

Saropogon dasynotus LOEW, 1871
Distribution in Iran: East Azarbaijan (SAKENIN et al. 2009), Tehran (SAMIN et al. 2010).
Distribution outside Iran: Kazakhstan, Russia and adjacent regions (Soviet Middle Asia), Turkey.

Saropogon distinctus BECKER, 1906
Distribution outside Iran: Algeria, Egypt, Israel.
Comments: Predator of Tabanus eggeri SCHINER (Diptera: Tabanidae) (SAGHAEI et al. 2010).

Saropogon fucatus LOEW, 1869
Distribution in Iran: Sistan & Baluchestan (BECKER & STEIN 1913).
Distribution outside Iran: North Africa, Spain.

Saropogon gigas BECKER in BECKER & STEIN, 1913
Distribution in Iran: Kerman, Sistan & Baluchestan (BECKER & STEIN 1913).
Comments: Endemic to Iran.

Saropogon jugulum (LOEW, 1847) [Dasypogon]
Dasypogon brachypterus LOEW, 1869; D. micropterus LOEW, 1869.
Distribution in Iran: Khuzestan (OLDROYD 1958; ABBASSIAN-LINTZEN 1964a).
Distribution outside Iran: Albania, Algeria, Bosnia-Herzegovina, Croatia, Egypt, France, Great Britain, Greece, Libya, Morocco, Slovenia, Spain, Turkey.

Saropogon leucocephalus (MEIGEN, 1820) [Dasypogon]
Dasypogon leuccephalus MEIGEN; Laphria scutellaris (WIEDEMANN in MEIGEN, 1820).
Distribution in Iran: Fars (SAKENIN et al. 2008b), Guilan (GHAHARI et al. 2009), Kermanshah (SAMIN et al. 2011a), Mazandaran (SAKENIN et al. 2008a).
Distribution outside Iran: Egypt, France, Israel, Italy, Morocco, Palestine, Spain, Tunisia, Turkey.

Comments: Predator of *Paroxyna punctella* (FALLÉN) (Diptera: Tephritidae) and *Tephritis simplex* (LOEW) (Diptera: Tephritidae) (SAKENIN et al. 2008a).

*Saropogon longicornis* (MACQUART, 1838) [Dasypogon]

Distribution in Iran: Golestan, Mazandaran (GHAHARI et al. 2007b), Khorasan (BECKER & STEIN 1913), Sistan & Baluchestan (BECKER & STEIN 1913; THEODOR 1980), Tehran (ABBASSIAN-LINTZEN 1964a; SAMIN et al. 2010), Iran (no locality cited) (ENGEL 1930).

Distribution outside Iran: Egypt, Israel, Palestine.

Comments: This species was collected in a rice field, and resting on *Poa trivialis* (Poaceae) (GHAHARI et al. 2007b).

*Saropogon luctuosus* (WIEDEMANN in MEIGEN, 1820) [Dasypogon]

* Dioctria nigripennis* COSTA, 1844.

Distribution in Iran: East Azarbaijan (HAYAT et al. 2008).

Distribution outside Iran: Croatia, France, Greece, Italy, Portugal.

*Saropogon melanophrus* BIGOT, 1878

Distribution in Iran: East Azarbaijan (SAKENIN et al. 2008a), Golestan, Mazandaran (SAMIN et al. 2011c, d), Lorestan (SAMIN et al. 2011a).

Distribution outside Iran: Palearctic Region.

Comments: Predator of *Bombus (Eversmannibombus) persicus* RADOSZKOWSKI (Hymenoptera: Apidae) (SAKENIN et al. 2008a) and *Aleochara bipustulata* (LINNAEUS) (Coleoptera: Staphylinidae) (SAMIN et al. 2011c, d).

*Saropogon mofidii* ABBASSIAN-LINTZEN, 1964

Distribution in Iran: Khuzestan (ABBASSIAN-LINTZEN 1964a).

Comments: Endemic to Iran.

*Saropogon platynotus* (LOEW, 1847) [Dasypogon]

Distribution in Iran: Golestan, Mazandaran (GHAHARI et al. 2007a), Semnan (OSTOVAR & RASTEGAR 2013).

Distribution outside Iran: Turkey.

Comments: Predator of *Philanthus triangulum* (FABRICIUS) and *Ectemnius continuus* (FABRICIUS) (Hymenoptera: Crabronidae) (GHAHARI et al. 2007a).

*Saropogon pollinosus* LOEW, 1869

Distribution in Iran: Isfahan, Tehran (GHAHARI et al. 2007a), Khorasan (OSTOVAR & RASTEGAR 2013).

Distribution outside Iran: Spain, Turkey, Tunisia, Egypt.

**Saropogon verticalis** OLDROYD, 1958

*Distribution in Iran:* Khuzestan (ABBASSIAN-LINTZEN 1964a), Sistan & Baluchestan (OLDROYD 1958).

*Comments:* Endemic to Iran. Predator of wasps (Hymenoptera) (ABBASSIAN-LINTZEN 1964a).

**Saropogon vestitus** (WIEDEMANN, 1828) [Dasypogon]

*Dasypogon aegypticus* MACQUART, 1838; *D. confluens* LOEW, 1851.

*Distribution in Iran:* Semnan (SAKENIN et al. 2010), Sistan & Baluchestan (BECKER & STEIN 1913), Iran (no locality cited) (THEODOR 1980).

*Distribution outside Iran:* Egypt, Israel, Libya, Switzerland, Syria, Turkey.

*Comments:* Predator of *Strongylogaster xanthocera* (STEPHENS) (Hymenoptera: Tenthredinidae) (SAKENIN et al. 2010).

**Subfamily Laphriinae** MACQUART, 1838

**Tribe Laphriini** MACQUART, 1838

**Genus Choerades** WALKER, 1851

**Choerades fimbriata** (MEIGEN, 1820) [Laphria]

*Laphria marginata* (MEIGEN, 1820).

*Distribution in Iran:* Ardabil (HAYAT et al. 2008), Semnan (SAKENIN et al. 2010).

*Distribution outside Iran:* Albania, Armenia, Austria, Azerbaijan, Czech Republic, Finland, France, Germany, Hungary, Italy, Poland, Romania, Russia and West Siberia, Slovakia, Switzerland, Turkey, former Yugoslavia.


**Choerades fuliginosa** (PANZER, 1798) [Asilus]

*Laphria auribarbis* (MEIGEN, 1820); *L. cincta* MEIGEN, 1820; *L. neutralis* (DUDA, 1940).

*Distribution in Iran:* Ardabil (SAMIN et al. 2011b), Fars (SAMIN et al. 2011c), Khorasan (OSTOVARI & RASTEGAR 2013), Tehran (SAMIN et al. 2010).

*Distribution outside Iran:* Armenia, Albania, Austria, Bulgaria, Czech Republic, Finland, France, Germany, Greece, Poland, Romania, Russia and adjacent regions (East Siberia, North European territory, former Transcaucasus Republics, West Siberia), Spain, Sweden, Turkey, former Yugoslavia.

*Comments:* Predator of *Philonthus politus* (LINNAEUS) (Coleoptera: Staphylinidae) (SAMIN et al. 2011b, c).

**Choerades fulva** (MEIGEN, 1804) [Laphria]

*Laphria proboscidea* (LOEW, 1847); *L. aurigera* (DUFOUR, 1850); *L. aurifera* (SCHINER, 1854).

*Distribution in Iran:* East Azarbaijan (SAKENIN et al. 2009), Fars, Lorestan
(Samin et al. 2011a), Mazandaran (Sakenin et al. 2008a), West Azerbaijan (Sakenin et al. 2011).

**Distribution outside Iran:** Austria, Czech Republic, France, Germany, Greece, Italy, Poland, Romania, Russia (Far East, South European territory), Switzerland, The Netherlands, Tibet, Turkey, former Yugoslavia.

**Comments:** Predator of *Arge cingulata* (Jakovlev) (Hymenoptera: Argidae) (Sakenin et al. 2008a; Samin et al. 2011a), *Ctenisomorphus major* (Raffray) (Coleoptera: Staphylinidae) (Sakenin et al. 2009) and *Sterictiphora furcata* (Villers) (Hymenoptera: Argidae) (Samin et al. 2011a).

*Choerades gilva* (Linnaeus, 1758) [*Asilus*]

*Asilus rufa* De Geer, 1776; *Laphria bilineata* Walker, 1849.

**Distribution in Iran:** Guilan (Gahhari et al. 2007b, 2009), Ilam, Kermanshah (Hayat et al. 2008), Mazandaran (Gahhari et al. 2007b).

**Distribution outside Iran:** Bulgaria, Canada, Czech Republic, Denmark, England, Finland, France, Germany, Hungary, Italy, Mongolia, Norway, Poland, Romania, Russia, Sweden, Switzerland, The Netherlands, USA.

**Comments:** This species was collected in a rice field, and resting on *Amaranthus blitoides* (Amaranthaceae) (Gahhari et al. 2007b). Predator of *Delta dimidiatipenne* (Saussure) and *Vespa crabro* Linnaeus (Hymenoptera: Vespidae) (Hayat et al. 2008).

*Choerades loewi* Lehr, 1991

**Distribution in Iran:** Khorasan (Ostovari & Rastegar 2013), Yazd (Gahhari et al. 2007a).

**Distribution outside Iran:** Greece, Turkey.

**Comments:** Predator of *Sarcophaga* (*Sarcophaga*) lehmani Müller (Diptera: Sarcophagidae) and *Tabanus autumnalis* Linnaeus (Diptera: Tabanidae) (Gahhari et al. 2007a).

*Choerades marginata* (Linnaeus, 1758) [*Asilus*]

*Asilus media* (Müller, 1765); *A. aurea* (Olivier, 1789); *Erax nigra* Scopoli, 1763; *Laphria anthrax* Meigen, 1804; *L. nigra* (Meigen, 1804); *L. nigrifrons* (Megerle in Meigen, 1820); *L. fulgida* (Meigen, 1820); *L. podagrica* (Meigen, 1820); *L. strandi* (Duda, 1940); *L. chrysocephala* Meigen, 1820.

**Distribution in Iran:** East Azerbaijan (Hayat et al. 2008).

**Distribution outside Iran:** Albania, Austria, Belgium, Czech Republic, Denmark, England, Finland, France, Germany, Hungary, Italy, Luxembourg, Norway, Poland, Romania, Sweden, Switzerland, The Netherlands, former Yugoslavia (Geller-Grimm 2007), Russia (Astakhov 2011).

*Choerades ursula* (Loew, 1851) [*Laphria*]

**Distribution in Iran:** Isfahan, Kerman, Khorasan (Gahhari et al. 2007a), Semnan (Ostovari & Rastegar 2013).

**Distribution outside Iran:** Russia (East and West Siberia), Turkey.

**Comments:** Predator of *Chalybion walteri* (Kohl), *Sphex leuconotus* Brulle and
Genus Podalonia (LE GUILLOU) (Hymenoptera: Sphecidae) (GHAHARI et al. 2007a).

Genus Laphria MEIGEN, 1803

Laphria aurea (FABRICIUS 1794) [Asilus]
Laphria lutea MEGERLE in MEIGEN, 1820.

**Distribution in Iran:** Mazandaran, Qom (GHAHARI et al. 2007a), Semnan (GHAHARI et al. 2007a; OSTOVARI & RASTEGAR 2013).

**Distribution outside Iran:** Austria, Bulgaria, Czech Republic, France, Greece, Hungary, Israel, Italy, Romania, Russia (South European territory), Slovakia, Turkey, former Yugoslavia.

**Comments:** Predator of Oxythyrea cinctella (SCHAUM) (Coleoptera: Scarabaeidae), Cephalostenus elegans BRULLÉ (Coleoptera: Tenebrionidae) and Coccinella septempunctata (LINNAEUS) (Coleoptera: Coccinellidae) (GHAHARI et al. 2007a).

Laphria dizonias LOEW, 1847

**Distribution in Iran:** Fars (ABBASSIAN-LINTZEN 1964a; SAGHAEI et al. 2008, 2009, 2010; TOMASOVIC & SAGHAEI 2009), Southern Iran (no locality cited) (ABBASSIAN-LINTZEN 1964a).

**Distribution outside Iran:** Armenia, Azerbaijan, Greece, Iraq, Israel, Turkey.

**Comments:** This species was collected around fig trees (ABBASSIAN-LINTZEN 1964a). Predator of Bembix oculata PANZER (Hymenoptera: Sphecidae) (SAGHAEI et al. 2010).

Laphria flava (LINNAEUS, 1761) [Asilus]

Erax conopsoides SCOPOLI, 1763; E. ferox SCOPOLI, 1763; Asilus fulva GEOFFROY in FOURCROY, 1785; Asilus pedemontana FABRICIUS, 1794; Laphria escorialensis STROBL, 1906.

**Distribution in Iran:** Mazandaran (HAYAT et al. 2008).

**Distribution outside Iran:** Albania, Algeria, Austria, Belgium, Czech Republic, Denmark, England, France, Germany, Greece, Hungary, India, Italy, Luxembourg, Mongolia, Norway, Poland, Romania, Russia, Spain, Sweden, The Netherlands, Turkey, former Yugoslavia.

**Comments:** Predator of the gypsy moth, Lymantria dispar LINNAEUS (Lepidoptera: Lymantridae) in oak forests (HAYAT et al. 2008).

Laphria gibbosa (LINNAEUS, 1758) [Asilus]

**Distribution in Iran:** Khorasan, Yazd (GHAHARI et al. 2007a).

**Distribution outside Iran:** Austria, Belgium, Switzerland, Czech Republic, Slovakia, Germany, Denmark, Spain, France, Great Britain, Italy, Norway, Poland, Romania, Sweden, Finland, Russia (North, Central and South European territory, West and East Siberia), Kazakhstan, Turkey, former Yugoslavia.

**Comments:** Predator of Gonocephalum freudei KASZAB (Coleoptera: Tenebrionidae), Coccinella septempunctata (LINNAEUS) (Coleoptera: Coccinellidae) (GHAHARI et al. 2007a).
Genus *Nusa* Walker, 1851

*Nusa infumata* (Loew, 1851) [Laphria]

*Laphria brachyptera* Loew, 1851; *Dasythrix stenura* Loew, 1858; *D. ruficornis* Wulp, 1899.

**Distribution in Iran:** Tehran (Abbassian-Lintzen 1964a), Iran (no locality cited) (Theodor 1980).

**Distribution outside Iran:** Egypt, Kazakhstan, Kenya, Mozambique, Namibia, Russia, South African Republic, Tanzania, Yemen, Zimbabwe.

*Nusa puella* (Rondani, 1873) [Halictosoma]

**Distribution in Iran:** Iran (no locality cited) (Lehr 1988).

**Comments:** Endemic to Iran.

*Nusa ramicosa* (Loew, 1871) [Dasythrix]

*Dasythrix ramicosa* Loew, 1871.

**Distribution in Iran:** Kerman (Becker & Stein 1913), Khuzestan (Abbassian-Lintzen 1964a), Sistan & Baluchestan (Becker & Stein 1913; Oldroyd 1958).

**Distribution outside Iran:** Azerbaijan, China, Iraq, Kazakhstan, Kirgystan Tajikistan, Turkmenistan, Turkey, Uzbekistan.

**Comments:** This species was collected resting on fine white clay in amongst more or less sparse vegetation (Abbassian-Lintzen 1964a).

**Tribe Andrenosomini Hull, 1962**

Genus *Andrenosoma* Rondani, 1856

*Andrenosoma albibarbe* (Meigen, 1820) [Laphria]

*erythrurum* (Loew, 1847): Linn. ent., 2: 552 (*Laphria*). Type-locality: "Mermeriza" (Turkey).

*adustiventre* (Costa, 1863): Atti R. Accad., Napoli, (1) 2: 50 (*Elaeotoma*). Type-locality: Calabria (Italy).

**Distribution in Iran:** East Azerbaijan (Samin et al. 2011b, c), Hamadan (Samin et al. 2011a), Isfahan (Sakenin et al. 2008a).

**Distribution outside Iran:** Algeria, Austria, Czech Republic, France, Greece, Italy, Poland, Romania, Russia and adjacent regions (Central European territory, Far East, South European territory), Spain, Turkey.

**Comments:** Predator of *Bombus* (Thoracobombus) ruderarius (Müller) (Hymenoptera: Apidae) (Sakenin et al. 2008a) and *Stenus aceris* Stephens (Coleoptera: Staphylinidae) (Samin et al. 2011b, c).

*Andrenosoma atrum* (Linnaeus, 1758) [Asilus]

*Erax prostratum* Scopoli, 1763.

**Distribution in Iran:** Ardabil (Hayat et al. 2008).

**Distribution outside Iran:** Algeria, Austria, Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Italy, Poland, Romania, Russia, Spain, Sweden, Switzerland, Turkey, former Yugoslavia.
Comments: Predator of the Colorado potato beetle, *Leptinotarsa decemlineata* Say (Coleoptera: Chrysomelidae) (Hayat et al. 2008).

*Andrenosoma farsicola* **Tomasovic & Saghaei, 2009**

**Distribution in Iran:** Fars (Tomasovic & Saghaei 2009).

Comments: Endemic to Iran.

*Andrenosoma serratum* **Hermann, 1906**

**Distribution in Iran:** Guilan (Ghahari et al. 2007a), Semnan (Ghahari et al. 2007a; Ostovari & Rastegar 2013).

**Distribution outside Iran:** Turkey.

Comments: Predator of *Allodynerus floricola* (Saussure) (Hymenoptera: Vespidae) and *Parapolybia escalerae* (Meade-Waldo) (Hymenoptera: Vespidae) (Ghahari et al. 2007a).

Genus *Pogonosoma* **Rondani, 1856**

*Pogonosoma maroccanum* (Fabricius, 1794) [Asilus]


**Distribution in Iran:** Khorasan (Ostovari & Rastegar 2013), Mazandaran, Semnan (Ghahari et al. 2007a).

**Distribution outside Iran:** Albania, Algeria, Austria, Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Italy, Malta, Morocco, Poland, Romania, Russia (central and South European territory), Slovakia, Turkey, former Yugoslavia.


Tribe Ctenotini **Hull, 1962**

Genus *Ctenota* **Loew, 1873**

*Ctenota coerulea* (Becker in Becker & Stein, 1913) [Epilamyra]

**Distribution in Iran:** Khorasan (Becker & Stein 1913), Iran (no locality cited) (Engel 1930).

**Distribution outside Iran:** Israel, Kazakhstan, Mongolia, former Soviet Middle Asia.

*Ctenota molitrix* **Loew, 1873**

**Distribution in Iran:** Khuzestan (Abbassian-Lintzen 1964a), Sistan & Baluchestan (Becker & Stein 1913), Iran (no locality cited) (Engel 1930; Theodor 1980).

**Distribution outside Iran:** Egypt, Israel, Kazakhstan, Syria, Turkmenistan, Uzbekistan (Lehr 1988).

Comments: This species was collected on dry white clay with xerophilous and halophilous plants (Abbassian-Lintzen 1964a).
Genus *Stiphrolamyra* **Engel, 1928**

**Stiphrolamyra pleskei** (Becker in Becker & Stein, 1913)

_Lamyra pleskei_ (Becker in Becker & Stein, 1913) (Hradsky & Geller-Grimm, 1997).

**Distribution in Iran**: Kerman (Becker & Stein, 1913), Sistan & Baluchestan (Becker & Stein, 1913; Dikow and Londt, 2000), Iran (no locality cited) (Engel 1930).

**Distribution outside Iran**: Afghanistan, Turkey.

**Comments**: Although species of _Lamyra_ LOEW are easy to recognize in the field, little is known about their biology. Theodor (1980) mentioned that _Lamyra vorax_ LOEW, 1858 resembles _Sphex afer sordidus_ DAHLBOM (Sphecidae) (found sympatriically in southwest Arabia) in size, appearance and coloration. This observation is supported by the collection (in Namibia by Jason G.H. Londt of a wasp of the genus _Sphex_ sp., which was flying together with _Lamyra gulo_ (LOEW, 1851). It is not known if this is mimicry or merely convergence (Dikow & Londt 2000).

**Stiphrolamyra rubicunda** **Oldroyd, 1947**

**Distribution in Iran**: Fars (Saghaei et al. 2008, 2009, 2010).

**Distribution outside Iran**: Egypt, Israel, Libya, Morocco.

**Comments**: Predator of _Cylindromyia brassicaria_ (Fabricius) (Diptera: Tachinidae) (Saghaei et al. 2010).

Subfamily _Laphystiinae_ **Hendel, 1936**

Genus *Acrochordomerus* **Hermann, 1920**

_Acrochordomerus aeneus_ **Hermann, 1920**

**Distribution in Iran**: Guilan, Khuzestan (Ghahari et al. 2007b), Semnan (Ostovari & Rastegar 2013).

**Distribution outside Iran**: Syria, Turkey.

**Comments**: This species was collected resting on _Tribulus terrestris_ (Zygophyllaceae) (Ghahari et al. 2007b).

Genus *Glyphotriclis* **Hermann, 1920**

_Glyphotriclis impulvinatus_ **Oldroyd, 1958**

**Distribution in Iran**: Khuzestan (Abbassian-Lintzen 1964a), Sistan & Baluchestan (Oldroyd 1958).

**Comments**: Endemic to Iran. Numerous on sandy bank of the Karkheh River. Predator of solitary wasps of same body length and appearance as _G. impulvinatus_, the wasps inhabiting minute burrows in the sand (Abbassian-Lintzen 1964a).

Genus *Hoplotriclis* **Hermann, 1920**

_Hoplotriclis pallasii_ (Wieemann, 1828) [Dasypogon]

**Distribution in Iran**: East Azarbaijan (Samin et al. 2011b, c), Semnan (Sakenin et al. 2010).
**Distribution outside Iran:** Greece, Kazakhstan, Romania, Russia (South European territory), Turkey.

**Comments:** Predator of *Vespula rufa* (LINNAEUS), *V. vulgaris* (LINNAEUS) (Hymenoptera: Vespidae) (SAKENIN et al. 2010) and *Stenus subaeneus* ERICHSON (Coleoptera: Staphylinidae) (SAFIN et al. 2011b, c).

**Genus Laphystia LOEW, 1847**

**Laphystia dimidiata OLDROYD, 1958**

**Distribution in Iran:** Khuzestan (OLDROYD 1958).

**Comments:** Endemic to Iran.

**Laphystia erberi** (SCHINER, 1865) [Laphystia]

Laphystia arenacea PARAMONOV 1930.


**Distribution outside Iran:** Azerbaijan, Egypt, Greece, Iraq, Israel, Italy, Kazakhstan, Malta, Spain, Romania, Tunisia, Turkey.

**Comments:** Predator of an unknown species of Chrysididae (Hymenoptera) (SAGHAEI et al. 2010).

**Laphystia latiuscula LOEW, 1871**

Laphystia metallescens HERMANN, 1906.

**Distribution in Iran:** Fars (ABBASSIAN-LINTZEN 1964a).

**Distribution outside Iran:** Afghanistan, Russia, Ukraine.

**Laphystia lehri** ABBASSIAN-LINTZEN, 1964

**Distribution in Iran:** Khuzestan (ABBASSIAN-LINTZEN 1964a).

**Comments:** Endemic to Iran. This species was collected on sandy ground with sparse vegetation beside saline swamps (ABBASSIAN-LINTZEN 1964a).

**Laphystia sabulicola LOEW, 1847**

**Distribution in Iran:** Fars, Isfahan (GHAHARI et al. 2007a).

**Distribution outside Iran:** Austria, China, Greece, Italy, Kazakhstan, Tajikistan, Tunisia, Turkey, Turkmenia, Uzbekistan, former Yugoslavia.

**Comments:** Predator of *Palmodes occitanicus punceticollis* (KOHL) (Hymenoptera: Sphecidae), *Cephus pygmaeus* (LINNAEUS) (Hymenoptera: Cephidae) (GHAHARI et al. 2007a).

**Genus Perasis HERMANN, 1905**

**Perasis sussianae** ABBASSIAN-LINTZEN, 1964

**Distribution in Iran:** Khuzestan (ABBASSIAN-LINTZEN 1964a).

**Distribution outside Iran:** Azerbaijan.

**Comments:** This species was collected on light, loose soil. Predator of large yellow ants (Hymenoptera: Formicidae) (ABBASSIAN-LINTZEN 1964a).
Genus *Psilocurus* LOEW, 1874

*Psilocurus hypopygialis* (PARAMONOv, 1930) [*Laphystia*]


**Distribution in Iran:** Khuzestan (OLDROYD 1958; ABBASSIAN-LINTZEN 1964a).

**Distribution outside Iran:** Armenia, Azerbaijan, Iraq, Turkmenistan.

**Comments:** This species was collected resting on white clay within more or less sparse vegetation (ABBASSIAN-LINTZEN 1964a).

Genus *Scytomedes* RODER, 1882

*Scytomedes haemorrhoidalis* (FABRICIUS, 1794) [*Asilus*]

*Gastrichelus nubeculipennis* (COSTA, 1863); *Scytomedes menstruus* LOEW in VON RODER, 1882.

**Distribution in Iran:** Semnan (SAKENIN et al. 2010), West Azerbaijan (HAYAT et al. 2008).

**Distribution outside Iran:** Algeria, Bulgaria, France, Greece, Italy, Morocco, Tunisia, Turkey.

**Comments:** Predator of *Musca domestica* (Diptera: Muscidae) (HAYAT et al. 2008).

Genus *Trichardis* HERMANN, 1906

*Trichardis leucocomus* (WULP, 1899) [*Hoplistomerus*]

*Strobilothrix albipila* BECKER, 1907.

**Distribution in Iran:** Khuzestan (OLDROYD 1958; ABBASSIAN-LINTZEN 1964a), Iran (no locality cited) (THEODOR 1980).

**Distribution outside Iran:** Algeria, Egypt, Israel, Kazakhstan, Morocco, Yemen.

**Comments:** This species was collected on river banks with pure sandy soil, rocks, tamarisks and oleander (ABBASSIAN-LINTZEN 1964a).

Genus *Trichardopsis* OLDROYD, 1958

*Trichardopsis richteri* OLDROYD, 1958

*Acrochordomerus kasakh* LEHR, 1958.

**Distribution in Iran:** Khuzestan (ABBASSIAN-LINTZEN 1964a), Southern Iran (no locality cited) (OLDROYD 1958).

**Distribution outside Iran:** Kazakhstan, Kirgystan Tajikistan, Turkmenistan, Uzbekistan.

Genus *Triclis* LOEW, 1851

*Triclis olivaceus* (LOEW, 1851) [*Dasypogon*]

*Gastrichelius halictivorus* RONDANI, 1856.
Distribution in Iran: Iran (no locality cited) (THEODOR 1980).
Distribution outside Iran: Azerbaijan, France, Greece, Israel, Italy, Kazakhstan, Kirgyzstan, Tajikistan, Turkmenistan, Uzbekistan, Russia, Turkey.

Genus Udenopogon BECKER, 1913

Udenopogon inscriptus BECKER in BECKER & STEIN, 1913
Distribution in Iran: Kerman, Sistan & Baluchestan (BECKER & STEIN 1913), Iran (no locality cited) (ENGEL 1930).
Comments: Endemic to Iran.

Subfamily Leptogastrinae SCHINER, 1862

Genus Euscelidia WESTWOOD, 1849

Euscelidia pallasii (WIEDEMANN, 1818)
Leptogaster conopsoides (PALLAS in WIEDEMANN, 1818) as a collection name; Leptogaster pubiceps LOEW, 1871.
Distribution outside Iran: Greece, Kazakhstan, Russia, Turkey, Turkmenistan.
Distribution in Iran: Markazi (HAYAT et al. 2008).

Genus Leptogaster MEIGEN, 1803

Leptogaster calceata ENGEL, 1925
Distribution in Iran: Ilam, Kordestan (GHAHARI et al. 2007a), Semnan (OSTOVARI & RASTEGAR 2013).
Distribution outside Iran: Armenia, Azerbaijan, Georgia, former Transcaucasus Republics, Turkey.
Comments: Predator of Chalybion flebile (LEPELETIER) (Hymenoptera: Sphecidae) and Podalonia hirsuta (SCOPOLI) (Hymenoptera: Sphecidae) (GHAHARI et al. 2007a). Leptogaster spp. are more often reported as preying upon spiders because of their method of foraging, generally close to the ground, weaving in-and-out of vegetation, and hovering in front of vegetation, and striking at resting prey (DENNIS & LAVIGNE 1976; DIKOW 2007, 2008; SCARBROUGH & SIPES 1973).

Leptogaster cylindrica (DE GEER, 1776)
Asilus tipuloides FABRICIUS, 1775; A. livida GEOFFROY in FOURCROY, 1785; A. fusca MEIGEN, 1804; A. nigricornis LOEW, 1847; A. dorsalis DAHLBOM, 1851.
Distribution outside Iran: Albania, Algeria, Austria, Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Kazakhstan (incl. Turkistan), Luxembourg, Mongolia, Norway, Poland, Roumania, Russia (Central, North and South European Territory, East and West Siberia, Far East), Soviet Middle Asia, Spain, Sweden, Switzerland, The Netherlands, former Transcaucasus Republics, Turkey, United Kingdom, former Yugoslavia.
Comment: This species was collected in a harvested wheat field. Predator of *Zyginidia sohrab* Zachvatkin (Hemiptera: Cicadellidae) (SAGHAEI et al. 2010).

**Leptogaster cylindrica hispanica** MEIGEN, 1838

**Distribution in Iran**: Iran (no locality cited) (LEHR 1988).

**Distribution outside Iran**: Algeria, Azerbaijan, Bosnia-Herzegovina, Croatia, France, Italy, Kazakhstan, Morocco, Slovenia, Spain, former Transcaucasus Republics, West Siberia.

**Leptogaster gracilis** LOEW, 1847

**Distribution in Iran**: Sistan & Baluchestan (OLDROYD 1958).

**Distribution outside Iran**: Israel, Kazakhstan, Mongolia, Romania, Russia, Turkey.

**Leptogaster guttiventris** ZETTERSTEDT, 1842

*Leptogaster cylindrica* MEIGEN, 1820.

**Distribution in Iran**: Golestan (HAYAT et al. 2008).

**Distribution outside Iran**: Austria, Belgium, Czech Republic, Denmark, England, Finland, France, Germany, Hungary, Poland, Russia, Sweden, Switzerland, The Netherlands.


**Leptogaster nartshukae** LEHR, 1961

**Distribution in Iran**: Iran (no locality cited) (LEHR 1988).

**Distribution outside Iran**: Kazakhstan, Mongolia, Russia (West and East Siberia).

**Leptogaster pubicornis** LOEW, 1847

Leptogaster pusillus JAENNICKE 1867.

**Distribution in Iran**: Golestan (HAYAT et al. 2008), Semnan (SAKENIN et al. 2010), Tehran (SAMIN et al. 2010).

**Distribution outside Iran**: Bulgaria, Czech Republic, France, Germany, Greece, Hungary, Italy, Kazakhstan, Russia, Switzerland, Turkey, Uzbekistan.

Comment: Predator of *Archips rosanus* (LINNAEUS) (Lepidoptera: Tortricidae) (HAYAT et al. 2008), *Cerceris rybyensis* (LINNAEUS) (Hymenoptera: Sphecidae) and *Vespula vulgaris* (LINNAEUS) (Hymenoptera: Vespidae) (SAMIN et al. 2010).

Subfamily Ommatiinae HARDY, 1927

**Genus Ommatius** WIEDEMANN, 1821

**Ommatius eugenii** RICHTER, 1976

**Distribution in Iran**: Chaharmahal & Bakhtiari (SAKENIN et al. 2008a), Khorasan (SAMIN et al. 2011a).

**Distribution outside Iran**: Afghanistan.
Comments: Predator of *Bombus* (*Melanobombus*) *minuatus* BINGHAM (Hymenoptera: Apidae) (SAKENIN et al. 2008a).

**Ommatius stackelbergi** (V. RICHTER, 1960)

**Distribution in Iran**: Semnan, Tehran (GHAHARI et al. 2007a).

**Distribution outside Iran**: Armenia, Turkey.

Comments: Predator of *Sarcophaga* (*Liopygia*) *argyrostoma* ROBINEAU-DESVOIDY (Diptera: Sarcophagidae) and *Sarcophaga* (*Liopygia*) *africa* WIEDEMANN (Diptera: Sarcophagidae) (GHAHARI et al. 2007a).

**Ommatius tenellus** WULP, 1889

**Distribution in Iran**: Sistan & Baluchestan (OLDROYD 1958).

**Distribution outside Iran**: Algeria, Azerbaijan, Chad, China, Egypt, Ethiopia, India, Israel, Niger, Senegal, Sudan, Yemen.

Subfamily *Stenopogoninae* HULL, 1962

**Tribe Dioctriini** ENDERLEIN, 1936

**Genus Dioctria** MEIGEN, 1803

**Dioctria abdominalis** BECKER, 1923

**Distribution in Iran**: Isfahan (LEHR et al. 2007).

**Distribution outside Iran**: Turkey (LEHR 1988, BAYRAKDA & HASBENLI 2009).


**Dioctria atricapilla** MEIGEN, 1804

*Dioctria nigripes* MEIGEN, 1804; *D. fuscipennis* FALLÉN, 1814; *D. atrata* MEIGEN, 1820; *D. fallen* MEIGEN, 1820; *D. geniculata* MEIGEN, 1820; *D. rufimana* LOEW, 1840 (as var. of *fuscipennis*).

**Distribution in Iran**: Golestan (LEHR et al. 2007).

**Distribution outside Iran**: Austria, Belgium, Bulgaria, Byelorussia, Corsica, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Kazakhstan, Latvia, Lithuania, Luxembourg, Moldavia, Mongolia, Poland, Romania, Russia, Sweden, Switzerland, The Netherlands, Turkey, Ukraine, United Kingdom.

Comments: Predator of *Calliphora vomitoria* (LINNAEUS) (Diptera: Calliphoridae) (LEHR et al. 2007).

**Dioctria dispar** LOEW, 1871

**Distribution in Iran**: Guilan (HAYAT et al. 2008).

**Distribution outside Iran**: Russia, Kirgyzstan, Tajikistan, Uzbekistan.

Comments: Predator of the rice stem borer, *Chilo suppressalis* WALKER (Lepidoptera: Pyralidae) in rice fields (HAYAT et al. 2008).
**Dioctria flavipennis** MEIGEN, 1820

*Dioctria aurifrons* MEIGEN, 1820.

**Distribution in Iran**: Guilan (HAYAT et al. 2008), Isfahan (GHAHARI et al. 2007b), Mazandaran (GHAHARI et al. 2007b; HAYAT et al. 2008).

**Distribution outside Iran**: Austria, Bulgaria, Byelorusia, China, Czech Republic, Estonia, France, Germany, Great Britain, Hungary, Kazakstan, Kyrgyzstan, Latvia, Lithuania, Moldavia, Poland, Romania, Russia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan, West Siberia.

**Comments**: This species was collected in a rice field, and resting on *Xanthium pensylvanicum* (Compositeae) (GHAHARI et al. 2007b). Predator of *Sesamia* sp. (Lepidoptera: Noctuidae) in corn fields and *Dociostaurus crassiusculus* (PANTEL) (Orthoptera: Acrididae) in cotton fields (HAYAT et al. 2008).

**Dioctria gracilis** MEIGEN, 1820

*D. concinna* COSTA, 1883.

**Distribution in Iran**: Southern Khorasan (HAYAT et al. 2008).

**Distribution outside Iran**: Algeria, France, Germany, Italy, Sardinia, Switzerland, Turkey.

**Comments**: Predator of the rice stem borer, *Chilo suppressalis* WALKER and *C. phragmitellus* (HÜBNER) (Lepidoptera: Pyralidae) in rice and corn fields (HAYAT et al. 2008).

**Dioctria hyalipennis** (FABRICIUS, 1794)

*Dioctria anomala* MACQUART, 1826; *D. flavipes* MEIGEN, 1804; *D. frontalis* MEIGEN, 1804; *D. variipes* MEIGEN, 1820; *D. baumhaueri* MEIGEN, 1820; *D. strandi* DUDA, 1940.

**Distribution in Iran**: Sistan & Baluchestan (HAYAT et al. 2008).

**Distribution outside Iran**: Algeria, Austria, Belgium, Bulgaria, Canada, Czech Republic, Denmark, England, France, Finland, France, Great Britain, Italy, Luxembourg, Poland, Romania, Russia, Spain, Switzerland, The Netherlands, Tunisia, USA, former Yugoslavia.

**Comments**: Predator of *Paratettix histicus* (STAL) (Orthoptera: Tetrigidae) (HAYAT et al. 2008).

**Dioctria linearis** (FABRICIUS, 1787) [*Asilus*

*Asilus cingulata* ZETTERSTEDT, 1849; *A. linearis* MEIGEN, 1830.

**Distribution in Iran**: Guilan (HAYAT et al. 2008).

**Distribution outside Iran**: Austria, Belgium, Bulgaria, Czech Republic, Denmark, England, France, Germany, Great Britain, Hungary, Italy, Luxembourg, Poland, Romania, Russia, Switzerland, The Netherlands, former Yugoslavia.

**Comments**: Predator of *Ancistrocerus auctus* (FABRICIUS), and *Katamenes sichelii* (GIORDANI SOIKA) (Hymenoptera: Vespidae) (HAYAT et al. 2008).

**Dioctria lugens** LOEW, 1873

**Distribution in Iran**: Iran (no locality cited) (LEHR 1988).

**Distribution outside Iran**: Turkey.
Dioctria rufonigra THEODOR, 1980
Distribution in Iran: Mazandaran (LEHR et al. 2007).
Distribution outside Iran: Israel, Palestine, Turkey.
Comments: Predator of Helophilus parallelus (HARRIS) (Diptera: Syrphidae) (LEHR et al. 2007).

Dioctria striata THEODOR, 1980
Distribution in Iran: Fars, Kerman (LEHR et al. 2007).
Distribution outside Iran: Israel, Palestine, Turkey.
Comments: Predator of Xanthochelus nomas (PALLAS) (Coleoptera: Curculionidae) (LEHR et al. 2007).

Dioctria valida LOEW, 1856
Distribution in Iran: Isfahan (LEHR et al. 2007).
Distribution outside Iran: Armenia, Azerbaijan, Georgia, Romania, Turkey.
Comments: Predator of Temelucha lucida (SZÉPLIGETI) (Hymenoptera: Ichneumonidae) (LEHR et al. 2007).

Genus Molobratia HULL, 1958

Molobratia egregia (LOEW, 1869) [Dasypogon]
Distribution in Iran: Fars (LEHR et al. 2007), Mazandaran (SAKENIN et al. 2008a), Semnan (SAKENIN et al. 2010).
Distribution outside Iran: Armenia, Azerbaijan, Georgia, Romania, Turkey.
Comments: Predator of Psalidium maxillosum (FABRICIUS) (Coleoptera: Curculionidae) (LEHR et al. 2007) and Mallosia (Semnosia) caucasica PIC (Coleoptera: Cerambycidae) (SAKENIN et al. 2008a).

Molobratia teutonus (LINNAEUS, 1767) [Asilus]
Erax tenthredoides SCOPOLI, 1763; Asilus marmoratus GEOFFROY in FOURCROY, 1785; Dasypogon teuton MACQUART, 1834.
Distribution in Iran: Chaharmahal & Bakhtiari (LEHR et al. 2007), Fars (TOMASOVIC & SAGHAEI 2009), Isfahan (HAYAT et al. 2008), Tehran (SAMIN et al. 2010).
Distribution outside Iran: Albania, Austria, Belgium, Bulgaria, Czech Republic, Denmark, France, Germany, Greece, Hungary, Italy, Poland, Romania, Russia, Spain, Sweden, The Netherlands, Switzerland, Turkey.
Comments: Predator of Mallada flavifrons (BRAUER) (Neuroptera: Chrysopidae) (LEHR et al. 2007) and Dolichovespula saxonica (FABRICIUS) (Hymenoptera: Vespidae) (SAMIN et al. 2010).
Tribe Stichopogonini HARDY, 1930

Genus Lasiopogon LOEW, 1847

*Lasiopogon pilosellus* LOEW, 1847

**Distribution in Iran**: East Azarbaijan (SAKENIN et al. 2009), West Azarbaijan (SAMIN et al. 2011a).

**Distribution outside Iran**: Austria, Poland, Switzerland, Turkey.

**Comments**: Predator of *Copris hispanus* (LINNAEUS) (Coleoptera: Scarabaeidae) (SAKENIN et al. 2009) and *Bombus* (*Thoracobombus*) *ruderarius* (MÜLLER) (Hymenoptera: Apidae) (SAMIN et al. 2011a).

*Lasiopogon tarsalis* LOEW, 1847

**Distribution in Iran**: Chaharmahal & Bakhtiari (GHAHARI et al. 2010), Khorasan (OSTOVARI & RASTEGAR 2013).

**Distribution outside Iran**: Italy, Turkey.

**Comments**: Predator of *Hemisemidalis pallida* (WITHYCOMBE) (Neuroptera: Coniopterigidae) (GHAHARI et al. 2010).

Genus Rhadinus LOEW, 1856

*Rhadinus megalonix* LOEW, 1856

**Distribution in Iran**: Khuzestan (OLDROYD 1958; ABBASSIAN-LINTZEN 1964a).

**Distribution outside Iran**: Egypt, Iraq, Israel, Libya, Sudan, Syria, former Transcaucasus Republics, Tunisia, Yemen.

*Rhadinus unculinus* LOEW, 1856

**Distribution in Iran**: Khuzestan (SAKENIN et al. 2008a), Tehran (SAMIN et al. 2010).

**Distribution outside Iran**: Egypt, Israel, Tunisia, Yemen.

**Comments**: Predator of *Cephus cultratus* EVERSMAŃ (Hymenoptera: Cephidae) and *Cryptocephalus* (*Cryptocephalus*) *semiargenteus* REITTER (Coleoptera: Chrysomelidae) (SAKENIN et al. 2008a).

Genus Stichopogon LOEW, 1847

*Stichopogon albellus* LOEW, 1856

**Distribution in Iran**: Khuzestan (ABBASSIAN-LINTZEN 1964a), Sistan & Baluchestan (OLDROYD 1958), Tehran (SAMIN et al. 2010).

**Distribution outside Iran**: Egypt, Israel, Palestine.

*Stichopogon auritinctus* ABBASSIAN-LINTZEN, 1964

**Distribution in Iran**: East Azarbaijan (ABBASSIAN-LINTZEN 1964a).

**Comments**: Endemic to Iran.
Stichopogon caucasicus BEZZI, 1910
Distribution in Iran: East Azarbaijan (ABBASSIAN-LINTZEN 1964a), Kerman, Sistan & Baluchestan (OLDROYD 1958).
Distribution outside Iran: Former South European territory.
Comments: This species was collected on banks along small watercourses (ABBASSIAN-LINTZEN 1964a).

Stichopogon chrysostoma SCHINER, 1867
Stichopogon lucidiventria BECKER, 1902.
Distribution in Iran: Khorasan (BECKER & STEIN 1913), Tehran (ABBASSIAN-LINTZEN 1964a).
Distribution outside Iran: Cyprus, Egypt, Israel, Kazakhstan, Libya, Mongolia, former Soviet Middle Asia, Turkey.

Stichopogon elegantulus (WIEDEMANN in MEIGEN, 1820) [Dasypogon]
Stichopogon aequvecinctus COSTA, 1844; S. tener LOEW, 1847; S. frauenfeldi EGGER, 1855; S. riparius LOEW, 1871; S. caspicus RICHTER, 1963.
Distribution in Iran: East Azarbaijan, Golestan, Sistan & Baluchestan (GHAHARI et al. 2007a).
Distribution outside Iran: Algeria, Armenia, Austria, Azerbaijan, Bulgaria, Egypt, France (Corse), Georgia, Germany, Hungary, Israel, Italy, Kirgyzstan, Malta, Morocco, Portugal, former South European territory, Spain, former Transcaucasus Republics, Turkey, former Yugoslavia.
Comments: Predator of Bombus (Pyrobombus) sp. (Hymenoptera: Apidae), Delta dimidiatipenne (SAUSSURE) (Hymenoptera: Vespidae), and Dolichovespula saxonica (FABRICIUS) (Hymenoptera: Vespidae) (GHAHARI et al. 2007a).

Stichopogon scaliger LOEW, 1847
Stichopogon congener LOEW, 1856.
Distribution in Iran: East Azarbaijan (ABBASSIAN-LINTZEN 1964a), Kerman, Sistan & Baluchestan (BECKER & STEIN 1913), Semnan (Sakenin et al. 2010), Tehran (SAMIN et al. 2010).
Distribution outside Iran: Bulgaria, Czech Republic, Egypt, France, Greece, Italy, Kazakhstan, Romania, Slovakia, former South European territory, Turkey.
Comments: Predator of Tachysphex pompiliformis (PANZER) (Hymenoptera: Sphecidae) (SAMIN et al. 2010).

Stichopogon scaliger conjungens BEZZI, 1895
Distribution in Iran: Guilan (GHAHARI et al. 2007b, 2009), Semnan (OSTOVARI & RASTEGAR 2013).
Distribution outside Iran: Greece, Italy, Kazakhstan, Russia, former South European territory, Turkey, Turkmenistan.
Comments: This species was collected in a rice field (GHAHARI et al. 2007b).
**Stichopogon schineri Koch, 1872**

*Stichopogon spinimanus* Pokorny, 1887.

**Distribution in Iran:** Semnan (Sakenin et al. 2010), Sistan & Baluchestan (Oldroyd 1958).

**Distribution outside Iran:** Bulgaria, Corsica, France, Germany, Greece, Italy, Morocco, Spain, Switzerland, former Yugoslavia (incl. Bosnia-Herzegovina, Croatia, Macedonia, Slovenia).

**Comments:** Predator of *Nematus (Pteronidea) caeruleocarpus* (Hartig) (Hymenoptera: Tenthredinidae) (Sakenin et al. 2010).

**Tribe Stenopogonini Hardy, 1930**

**Genus Acnephalum Macquart, 1838**

*Acnephalum futile* Wulp, 1899

**Distribution in Iran:** Guilan (Ghahari et al. 2010), Hormozgan (Samin et al. 2011a), Semnan (Ostovari & Rastegar 2013).

**Distribution outside Iran:** Iraq, Saudi Arabia, Yemen and adjacent regions.

**Comments:** Predator of *Chrysoperla carnea* ( Stephens) (Neuroptera: Chrysopidae) (Ghahari et al. 2010).

**Genus Amphisbetetus Hermann, 1906**

*Amphisbetetus dorsatus* Becker in Becker & Stein, 1913

*Amphisbetetus rufipes* Engel, 1930.

**Distribution in Iran:** Sistan & Baluchestan (Becker & Stein 1913), Iran (no locality cited) (Engel 1930, Lehr 1988, Theodor 1980).

**Distribution outside Iran:** Egypt, Israel, Kazakhstan, former Soviet Middle Asia, Turkey.

*Amphisbetetus favillaceus* (Loew in Rosenhauer, 1856) [*Habropogon*]

**Distribution in Iran:** Fars (Saghaei et al. 2008, 2009), Khuzestan (Abbassian-Lintzen 1964a).

**Distribution outside Iran:** Afghanistan, Greece, Israel, former Soviet Middle Asia, Spain, former Transcaucasus Republics, Turkey.

**Comments:** This species was collected in the stony semi-desert hills of Northern Khuzestan, where asilids flew over the ground for very short distances (Abbassian-Lintzen 1964a).

**Genus Anarolius Loew, 1844**

*Anarolius fronto* Loew, 1873

**Distribution in Iran:** Golestan (Ghahari et al. 2007b).

**Distribution outside Iran:** Kazakhstan, Russia, Turkey, Uzbekistan.
Comments: This species was collected in a rice field (GHAHARI et al. 2007b).

*Anarolius jamshidi* ABBASSIAN-LINTZEN, 1964

**Distribution in Iran:** Tehran (ABBASSIAN-LINTZEN 1964a).

**Distribution outside Iran:** Turkey.

*Anarolius jubatus* LOEW, 1844

**Distribution in Iran:** Ardabil (GHAHARI et al. 2008a), Tehran (LEHR et al. 2007).

**Distribution outside Iran:** Armenia, Asian Turkey, Greece, former Transcaucasus Republics.

Comments: This species was collected in a cotton field. Predator of a snout moth (Lepidoptera: Pyralidae) (GHAHARI et al. 2008a). Predator of *Larinus (Larinomesius) curtus* HOCHHUTH (Coleoptera: Curculionidae) (LEHR et al. 2007).

**Genus Ancylorrhynchus** BERTHOLD, 1827

*Ancylorrhynchus argyrogaster* (SÉGUY, 1932) [*Ancylorrhynchus*]

**Distribution in Iran:** Fars (TOMASOVIC & SAGHAEI 2009), Iran (no locality cited) (LEHR 1988).

Comments: Endemic to Iran.

*Ancylorrhynchus bicolor* (BECKER in BECKER & STEIN, 1913) [*Ancylorrhynchus*]

**Distribution in Iran:** Khorasan (BECKER & STEIN 1913), Iran (no locality cited) (ENGEL 1930; LEHR 1988).

Comments: Endemic to Iran.

*Ancylorrhynchus farinosus* (BECKER in BECKER & STEIN, 1913) [*Ancylorrhynchus*]

**Distribution in Iran:** Sistan & Baluchestan (BECKER & STEIN 1913), Iran (no locality cited) (ENGEL 1930; LEHR 1988).

Comments: Endemic to Iran.

*Ancylorrhynchus glaucius* (ROSSI, 1790) [*Ancylorrhynchus*]

*Dasypogon variegates* (WIEDEMANN, 1818); *Dioctria pictus* (WIEDEMANN, 1821).

**Distribution in Iran:** East Azarbaijan (SAKENIN et al. 2009), Tehran (SAMIN et al. 2010).

**Distribution outside Iran:** Albania, Austria, France, Greece, Israel, Italy, Kazakhstan, Palestine, Romania, Russia and adjacent regions (former South European territory, former Soviet Middle Asia), Syria, Turkey, former Yugoslavia.

Genus *Anisopogon* LOEW, 1874

*Anisopogon asiaticus* OLDRYD, 1963 [*Heteropogon (Anisopogon)*]

**Distribution in Iran**: Golestan (GHAHARI et al. 2007b), Mazandaran (GHAHARI et al. 2007b, 2009), Khorasan (OSTOVAR & RASTEGAR 2013).

**Distribution outside Iran**: Afghanistan.

**Comments**: This species was collected in a rice field, and resting on *Urtica dioica* (Urticaceae) (GHAHARI et al. 2007b).

*Anisopogon hermanni* (ENGEL, 1930) [*Heteropogon*

**Distribution in Iran**: Fars (LEHR et al. 2007).

**Distribution outside Iran**: Israel, Kazakhstan, former South European territory, former Transcaucasus Republics, Turkey.

**Comments**: Predator of *Bibio marci* (LINNAEUS) (Diptera: Bibionidae) (LEHR et al. 2007).

Genus *Crobilocerus* LOEW, 1847

*Crobilocerus megilliformis* (LOEW, 1847) [*Dasypogon*

**Distribution in Iran**: Fars, Tehran (ABBASSIAN-LINTZEN 1964a).

**Distribution outside Iran**: Armenia, Greece, Romania, Turkey.

**Comments**: Endemic to Iran. Predator of *Tabanus atropathenicus* OLSUFJEV (Diptera: Tabanidae) (SAGHAEI et al. 2010).

*Cyrtopogon centralis* LOEW, 1871

**Distribution in Iran**: Guilan, Isfahan (GHAHARI et al. 2007b).

**Distribution outside Iran**: China, Mongolia, Russia (West and East Siberia, Far East), South and North Korea, Turkey.

**Comments**: This species was collected in a rice field, and resting on *Adiantum capillus/veneris* (Adiantaceae) (GHAHARI et al. 2007b).

*Cyrtopogon gorodkovi* LEHR, 1966

**Distribution in Iran**: Fars (Sakenin et al. 2008b), Isfahan (Samin et al. 2011a).

**Distribution outside Iran**: Russia and adjacent regions (Soviet Middle Asia, Tajikistan).

**Comments**: Predator of *Chrysolina (Diachalcoidea) sacarum* (Weise) (Coleoptera: Chrysomelidae) (Samin et al. 2011a).


**Cyrtopogon kushka LEHR, 1998**

**Distribution in Iran:** East Azarbaijan (SAKENIN et al. 2008a), Golestan (SAMIN et al. 2011d), Khorasan (SAMIN et al. 2011a).

**Distribution outside Iran:** Turkmenistan and other former Soviet Middle Asia regions.

**Comments:** Predator of *Colpa (Colpa) sexmaculata* (FABRICIUS) (Hymenoptera: Scoliidae) (SAKENIN et al. 2008a), *Acantholyda erythrocephala* (LINNAEUS) (Hymenoptera: Pamphiliidae) (SAMIN et al. 2011a) and *Lordithon thoracicus* (FABRICIUS) (Coleoptera: Staphylinidae) (SAMIN et al. 2011d).

**Genus Eriopogon LOEW, 1847**

**Eriopogon laniger** (MEIGEN, 1804) [Dasypogon]

*Holopogon flavescens* JAENNICKE, 1867 (GELLER-GRIMM, 1999).

**Distribution in Iran:** Sistan & Baluchestan (BECKER & STEIN 1913).

**Distribution outside Iran:** Algeria, France, Morocco, Portugal, Spain, Tunisia.

**Genus Galactopogon ENGEL, 1929**

**Galactopogon hispidus** ENGEL, 1929


**Distribution outside Iran:** Algeria, Israel, Jordan.

**Comments:** Predator of *Scaeva pyrastri* (LINNAEUS) (Diptera: Syrphidae) and *Hemianax ephippiger* (BURMEISTER) (Odonata: Aeshnidae) (SAGHAEI et al. 2010).

**Genus Habropogon LOEW, 1847**

**Habropogon decipiens** THEODOR, 1980

**Distribution in Iran:** Fars (SAGHAEI et al. 2008, 2009), Kermanshah (HAYAT et al. 2008).

**Distribution outside Iran:** Israel, Jordan, Turkey.

**Comments:** Predator of *Palmodes occitanicus puncticollis* (KOHL) (Hymenoptera: Sphecidae) (HAYAT et al. 2008).

**Habropogon dorai Engel, 1873**

**Distribution in Iran:** Type-locality: "Persia" (Iran). Iran (no locality cited) (ENGEL 1930).

**Distribution outside Iran:** Armenia.

**Habropogon lineatus** LEHR, 1960

**Distribution in Iran:** East Azarbaijan (LEHR 1988).

**Distribution outside Iran:** Azerbaijan.
Habropogon longiventris Loew, 1847
Distribution outside Iran: France, Greece, Israel, Russia, former Transcaucasus Republics, Turkey, Ukraine.
Comments: Predator of Katamenes sichelii (Giordani Soika) (Hymenoptera: Vespidae) (Hayat et al. 2008).

Habropogon montanus Lehr, 1960
Distribution in Iran: Khuzestan (Abbassian-Lintzen 1964a).
Distribution outside Iran: Kazakhstan, Tajikistan.

Habropogon similimus Theodore, 1980
Distribution in Iran: Golestan (Lehr et al. 2007).
Distribution outside Iran: Israel, Turkey.
Comments: Predator of Coccinella septempunctata septempunctata Linnaeus (Coleoptera: Coccinellidae) (Lehr et al. 2007).

Habropogon spissipes Hermann, 1909
Habropogon epissipes Engel, 1925.
Distribution in Iran: Chaharmahal & Bakhtiari (Sakenin et al. 2008a), East Azarbaijan (Ghahari et al. 2009), Tehran (Samin et al. 2010), West Azarbaijan (Sakenin et al. 2008b).
Distribution outside Iran: Egypt, Morocco, Turkey.
Comments: Predator of Taxonus agrorum (Fallén) (Hymenoptera: Tenthredinidae) and Phyllotreta maculicornis Pic (Coleoptera: Chrysomelidae) (Sakenin et al. 2008a).

Habropogon verticalis Becker in Becker & Stein, 1913
Distribution in Iran: Sistan & Baluchestan (Becker & Stein 1913).
Distribution outside Iran: Turkey.

Genus Heteropogon Loew, 1847

Heteropogon lehri Richter, 1968
Distribution in Iran: Mazandaran (Lehr et al. 2007).
Distribution outside Iran: Armenia, Turkey.
Comments: Predator of Malachius (Malachius) vittatus Ménétriés (Coleoptera: Malachiidae) (Lehr et al. 2007).

Heteropogon lugubris mesasiaticus Lehr, 1970
Distribution in Iran: Tehran (Samin et al. 2010), Iran (no locality cited) (Lehr 1988).
Distribution outside Iran: Armenia, Azerbaijan, Kazakhstan, Tajikistan, Uzbekistan.
Heteropogon nubilus (WIEDEMAN in MEIGEN, 1820)
Isopogon brevis (SCHINER, 1868).
Distribution in Iran: Fars (LEHR et al. 2007), West Azarbaijan (SHOEIBI & KARIMPOUR 2010).
Distribution outside Iran: Algeria, Israel, Jordan, Morocco, Palestine, Portugal, Spain, Tunisia, Turkey.
Comments: Predator of Campylomma liebknechti GIRAULT (Heteroptera: Miridae) and Tetrix tartara tartara (BOLIVAR) (Orthoptera: Tettigidae) (LEHR et al. 2007).

Heteropogon pyrinus HERMANN, 1906
Heteropogon pyrrhinus ENGEL, 1925.
Distribution in Iran: Fars (SAGHAEI et al. 2008, 2009), Iran (no locality cited) (HERMANN 1905; ENGEL 1930; THEODOR 1980).
Distribution outside Iran: Azerbaijan, Egypt, Israel, Kazakhstan, Kirgyzstan, Tajikistan, Turkmenistan.

Heteropogon scoparius LOEW, 1847
Distribution in Iran: Chaharmahal & Bakhtiari (LEHR et al. 2007).
Distribution outside Iran: Albania, former Soviet Middle Asia, Turkey.
Comments: Predator of Lixus rubicundus ZUBKOW (Coleoptera: Curculionidae) (LEHR et al. 2007).

Heteropogon succinctus LOEW, 1847
Distribution in Iran: Isfahan (LEHR et al. 2007).
Distribution outside Iran: Turkey.
Comments: Predator of Pristomerus horribilis NAROLSKY (Hymenoptera: Ichneumonidae) (LEHR et al. 2007).

Genus Holopogon LOEW, 1847

Holopogon albosetosus SCHINER, 1867
Holopogon digrammus LOEW, 1871
Distribution in Iran: East Azarbaijan (SAKENIN et al. 2009), Kordestan (SAKENIN et al. 2011), Tehran (SAMIN et al. 2010).
Distribution outside Iran: Kazakhstan, Russia and adjacent regions (former South European territory, Soviet Middle Asia, former Transcaucasus Republics), Turkey, Turkmenistan, Uzbekistan.

Holopogon dimidiatus (MEIGEN, 1820)
Podoctria dimidipennis (MEGERLE in MEIGEN, 1820); Dasypogon fuscipennis (MEIGEN, 1820); Holopogon timidus LOEW, 1847.
Distribution outside Iran: Austria, France, Greece, Hungary, Italy, Kazakhstan, Poland, Romania, Russia, former South European territory, West Siberia, former Transcaucasus Republics, former Yugoslavia.

Distribution in Iran: Golestan (HAYAT et al. 2008).

*Holopogon fumipennis* (MEIGEN, 1820)

*Dasypogon albipilus* (MEIGEN, 1820); *Holopogon strandi* DUDA, 1940.

Distribution in Iran: East Azarbaijan (SAKENIN et al. 2008b), Zanjan (SAKENIN et al. 2008a).

Distribution outside Iran: Austria, Belgium, Czech Republic, Germany, Greece, France, Hungary, Italy, Poland, Roumania, former South European territory, Switzerland, Turkey, former Yugoslavia (GELLER-GRIMM 2007), Russia (ASTAKHOV 2011).


*Holopogon imbecillus* LOEW, 1871

Distribution in Iran: Tehran (OLDROYD 1958), West Azarbaijan (SHOEIBI & KARIMPOUR 2010).

Distribution outside Iran: Former Soviet Middle Asia including, Armenia, Azerbaijan.

*Holopogon nigripennis* (MEIGEN, 1820) [Dasypogon]

Distribution in Iran: Khorasan (BECKER & STEIN 1913).

Distribution outside Iran: Austria, Azerbaijan, Belgium, Bulgaria, China, Czech Republic, Far East of former USSR, France, Germany, Greece, Italy, Kazakhstan, Mongolia, Poland, Slovakia, Switzerland, West and East Siberia.

*Holopogon nigropilosus* THEODOR, 1980

Distribution in Iran: Chaharmahal & Bakhtiari (LEHR et al. 2007).

Distribution outside Iran: Israel, Turkey.

Comments: Predator of *Ebaeus basipes* ABEILLE DE PERRIN (Coleoptera: Malachiidae) (LEHR et al. 2007).

*Holopogon priscus* (MEIGEN, 1820) [Dasypogon]

*Podoctria hyalipennis* (MEGERLE in MEIGEN, 1820); *Dasypogon clavipes* (LOEW, 1840); *D. laniger* (ZELLER, 1840); *Holopogon claviger* LOEW, 1871 (Nomen nudum).

Distribution in Iran: East Azarbaijan (SAKENIN et al. 2008a, b), Lorestan (SAFIN et al. 2011a).

Distribution outside Iran: Austria, France, Hungary, Kazakhstan, Poland, Russia (Central European territory, former South European territory, West Siberia), Kirgystan, Tajikistan, Turkey, former Yugoslavia.

Genus *Iranopogon* TIMON-DAVID, 1955

*Iranopogon brandti* TIMON-DAVID, 1955  
**Distribution in Iran:** Fars (TIMON-DAVID 1955).  
**Comments:** Endemic to Iran.

Genus *Jothopogon* BECKER, 1913

*Jothopogon leucomallus* (LOEW, 1871) [*Cyrtopogon*]  
**Distribution in Iran:** Sistan & Baluchestan (BECKER & STEIN 1913), Tehran (SAMIN et al. 2010), Iran (no locality cited) (THEODOR 1980).  
**Distribution outside Iran:** Israel, Jordan, Turkey, Turkmenistan, Uzbekistan.  
**Comments:** Predator of *Dolichovespula media* (RETZIUS) (Hymenoptera: Vespidae) (SAMIN et al. 2010).

Genus *Pycnopogon* LOEW, 1847

*Pycnopogon fasciculatus* (LOEW, 1847) [*Dasypogon*]  
**Distribution in Iran:** Golestan, Mazandaran (LEHR et al. 2007).  
**Distribution outside Iran:** Albania, Algeria, Azerbaijan, Bulgaria, Czech Republic, France, Greece, Israel, Italy, Morocco, Romania, Spain, Syria, Tunisia, Turkey, former Yugoslavia.  
**Comments:** Predator of *Polistes (Sulcopolistes) atrimandibularis* ZIMMERMANN (Hymenoptera: Vespidae) (LEHR et al. 2007).

*Pycnopogon hirsutus* BECKER in BECKER & STEIN, 1913  
**Distribution in Iran:** Sistan & Baluchestan (BECKER & STEIN 1913).  
**Comments:** Endemic to Iran.

*Pycnopogon leucostomus* ENGEL, 1930  
**Distribution in Iran:** Mazandaran (LEHR et al. 2007).  
**Distribution outside Iran:** Armenia, France, Turkey.  
**Comments:** Predator of *Ischnogasteroides picteti picteti* (SAUSSURE) (Hymenoptera: Vespidae) (LEHR et al. 2007).

*Pycnopogon melanostomus* LOEW, 1874  
**Distribution in Iran:** Khuzestan (ABBASSIAN-LINTZEN 1964a), Mazandaran (HAYAT et al. 2008).  
**Distribution outside Iran:** Egypt, Kazakhstan.  
**Comments:** Predator of *Calliphora vomitoria* LINNAEUS (Diptera: Calliphoridae) (HAYAT et al. 2008).

*Pycnopogon mixtus* (LOEW, 1847) [*Dasypogon*]  
*Dasypogon anthophorinus* LOEW, 1847.

Distribution outside Iran: Armenia, Azerbaijan, Egypt, Georgia, Greece, Israel, Jordan, Turkey.

Comments: Predator of Malachius (Malachius) labiatus BRULLÉ (Coleoptera: Malachiidae), Melanotmethis fuscipennis (REDTENBACHER) (Orthoptera: Pamphagidae) (LEHR et al. 2007) and Episyrphus balteatus (DE GEER) (Diptera: Syrphidae) (SAGHAEI et al. 2010).

Genus Scylaticus LOEW, 1858

Scylaticus elamiensis ABBASSIAN-LINTZEN, 1964

Distribution in Iran: Khuzestan (ABBASSIAN-LINTZEN 1964a).

Comments: Endemic to Iran.

Genus Sisyrnodytes LOEW, 1856

Sisyrnodytes nilicola (RONDANI, 1850) [Acnephalum]

Sisyrnodytes floccus LOEW, 1856; Dasypogon contrarius (WALKER, 1871); Sisyrnodytes rufus SÉGUY, 1931.

Distribution outside Iran: Algeria, Egypt, Israel, Morocco, former Soviet Middle Asia, Yemen.

Distribution in Iran: Fars (SAKENIN et al. 2008b), Hormozgan (SAMIN et al. 2011a).

Genus Stenopogon LOEW, 1847

Stenopogon avus (LOEW, 1874) [Scleropogon]

Distribution in Iran: Northern Khorasan (ABBASSIAN-LINTZEN 1964a), Tehran (SAMIN et al. 2010), Iran (no locality cited) (ENGEL 1930).

Distribution outside Iran: Kazakhstan, former Soviet Middle Asia.

Comments: Predator of Polistes bischoffi WEYRAUCH (Hymenoptera: Vespidae) (SAMIN et al. 2010).

Stenopogon callosus (PALLAS in WIEDEMANN, 1818) [Asilus]

Distribution in Iran: Fars (LEHR et al. 2007), Tehran (GHAHARI et al. 2008a).

Distribution outside Iran: Armenia, Azerbaijan, Bulgaria, France, Georgia, Germany, Hungary, Kazakhstan, Poland, Romania, former South European territory, Turkey, former Yugoslavia.

Comments: This species was collected in a cotton field. Predator of Helicoverpa armigera (Lepidoptera: Noctuidae) and Xylocopa (Copoxyla) iris (CHRIST) (Hymenoptera: Anthophoridae) (GHAHARI et al. 2008a). Also, predator of Bellieria melanura MEIGEN (Diptera: Sarcophagidae) (LEHR et al. 2007).
Stenopogon coracinus (LOEW, 1847) [Dasypogon]

Distribution in Iran: Golestan (LEHR et al. 2007).

Distribution outside Iran: Bulgaria, France, Greece, Hungary, Italy, Romania, Turkey, former Yugoslavia.

Comments: Predator of Graptus armeniacus HOCHHUTH (Coleoptera: Curculionidae) (LEHR et al. 2007).

Stenopogon elongatus (MEIGEN, 1804) [Asilus]

Stenopogon loewi SCHINER, 1866 (nomen nudum).

Distribution in Iran: Fars (SAGHAEI et al. 2010), Kuzestan (KHAJEHZADEH 2004), Semnan (SAKENIN et al. 2010), West Azarbaijan (SHOEIBI & KARIMPOUR 2010), Iran (no locality cited) (LEHR 1988).

Distribution outside Iran: Egypt, France, Greece, Hungary, Palestine, Romania, Russia, Tunisia, Turkey, West Sahara.

Comments: Predator of grasshoppers, Locusta migratoria LINNAEUS and Dociostaurus maroccanus (THUNBERG) (Orthoptera: Acrididae) (KHAJEHZADEH 2004), Jebusaea hammerschmidti REICHE (Coleoptera: Cerambycidae), Omophlus sp. (Coleoptera: Alleculidae), Apis mellifera LINNAEUS (Hymenoptera: Apidae) (SAGHAEI et al. 2010).

Stenopogon heteroneurus (MACQUART, 1838) [Dasypogon]

Distribution in Iran: Fars (ABBASSIAN-LINTZEN 1964a; SAGHAEI et al. 2010), Sistan & Baluchestan (BECKER & STEIN 1913).

Distribution outside Iran: Algeria, Egypt, Israel, Morocco, Tunisia, Turkmenistan, Uzbekistan.

Comments: This species was collected in a Amygdalus scoparia forest Predator of Apis mellifera (Hymenoptera: Apidae) (SAGHAEI et al. 2010).

Stenopogon junceus (WIEDEMANN in MEIGEN, 1820) [Dasypogon]

Dasypogon tanygastrus LOEW, 1861.


Distribution outside Iran: Afghanistan, Azerbaijan, France, Greece, Israel, Morocco, former South European territory, Spain, former Transcaucasus Republics Turkey.

Comments: This species was collected in a rice field (GHAHARI et al. 2007b). Predator of the migratory locust, Schistocerca gregaria (FORSKAL) (Orthoptera: Acrididae) (ABBASSIAN-LINTZEN 1964a) and Chalcophorella bagdadensis (LAPORTE & GORY 1836) (Coleoptera: Buprestidae) (SAGHAEI et al. 2010).

Stenopogon laevigatus (LOEW, 1851) [Dasypogon]

Dasypogon bicolor BIGOT, 1878.

Distribution in Iran: East Azarbaijan and West Azarbaijan (SHOEIBI & KARIMPOUR 2010), Fars, Yazd (ABBASSIAN-LINTZEN 1964a), Golestan (HAYAT et al. 2008; GHAHARI et al. 2008a), Tehran (SAMIN et al. 2010).
**Distribution outside Iran:** Afghanistan, Turkey, former Transcaucasus Republics, former South European territory.

**Comments:** This species was collected in a cotton field. Predator of *Evania stenochelea* Kieffer and *Zeuxevania splendidula* (Costa) (Hymenoptera: Evaniidae) (Ghahari et al. 2008a) and *Calliphora vomitoria* Linnaeus (Diptera: Calliphoridae) (Hayat et al. 2008).

**Stenopogon mollis** LOEW, 1868

**Distribution in Iran:** Tehran (Lehr et al. 2007).

**Distribution outside Iran:** Armenia, Georgia, Turkey.

**Comments:** Predator of *Campylomma liebknechti* Girault (Heteroptera: Miridae) (Lehr et al. 2007).

**Stenopogon nataliae** V. RICHTER, 1963

**Distribution in Iran:** Golestan, Mazandaran (Lehr et al. 2007).

**Distribution outside Iran:** Armenia, Turkey.

**Comments:** Predator of *Malachius aeneus* Linnaeus (Coleoptera: Malachiidae) and *Truxalis robusta* Uvarov (Orthoptera: Acrididae) (Lehr et al. 2007).

**Stenopogon nigriventris** LOEW, 1868

**Distribution in Iran:** Golestan (Hayat et al. 2008).

**Distribution outside Iran:** Greece, former Transcaucasus Republics, specifically Georgia, Turkey.

**Comments:** Predator of *Acridella turrita* Linnaeus (Orthoptera: Acrididae) (Hayat et al. 2008).

**Stenopogon roederii** BEZZI 1895

**Distribution in Iran:** Mazandaran (Ghahari et al. 2007b, 2009).

**Distribution outside Iran:** Italy, former Soviet Middle Asia, former Transcaucasus Republics (incl. Azerbaijan), Turkey.

**Comments:** This species was collected in a rice field (Ghahari et al. 2007b).

**Stenopogon rufipilus** (LOEW, 1873)

**Distribution in Iran:** Type-locality: "Schahkuh, Elbuis" (Iran, Golestan province), Northern Khorasan (Abbassian-Lintzen 1964a), Iran (no locality cited) (Engel 1930).

**Comments:** Endemic to Iran.

**Stenopogon rufipilus ruficauda** ENGEL, 1929

**Distribution in Iran:** Khorasan (Ostovari & Rastegar 2013), Tehran (Samin et al. 2010).

**Distribution outside Iran:** Armenia, former Transcaucasus Republics.

**Comments:** Predator of *Chrysotoxum parvulum* Violovitsh (Diptera: Syrphidae) (Samin et al. 2010).
Stenopogon sabaudus (FABRICIUS, 1794)
Asilus fulvulus PALLAS in WIEDEMANN, 1818 (nomen nudum); A. occultus LOEW, 1861.

Distribution in Iran: Khorasan (GHAHARI et al. 2008a), Kordestan (ABBASSIAN-LINTZEN 1964a), Semnan (NADERIAN et al. 2012).

Distribution outside Iran: Albania, Austria, Azerbaijan, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Italy, Slovakia, Slovenia, former South European territory, Spain, Switzerland, Syria, former Transcaucasus Republics, Turkey.

Comments: This species was collected in a cotton field. Predator of Palarus variegatus (FABRICIUS) (Hymenoptera: Sphecidae) (GHAHARI et al. 2008a). The subspecies S. sabaudus harpax LOEW, 1868 was reported from Kordestan by SAGHAEI et al. (2009) the report being based on the paper by ABBASSIAN-LINTZEN (1964a), but this subspecies was not recorded by ABBASSIAN-LINTZEN (1964a); therefore its presence in Iran is doubtful.

Stenopogon sciron (LOEW, 1873) [Scleropogon]
Scleropogon theseus LOEW, 1873.


Distribution outside Iran: Afghanistan, former Transcaucasus Republics, Turkey.

Comments: Predator of Oedaleus sp. (Orthoptera: Acrididae) (SAGHAEI et al. 2010). Also, an unknown species of Stenopogon was collected from Fars province by SAGHAEI et al. (2010) as the predator of Sphingonotus cf. rubescens (WALKER) (Orthoptera: Acrididae).

Stenopogon sciron superbos (PORTSCHINSKY, 1873) [Scleropogon]

Distribution in Iran: East Azarbaijan, West Azarbaijan (SHOEIBI & KARIMPOUR 2010), Sistan & Baluchestan (OLDROYD 1958), Iran (no locality cited) (ENGEL 1930).

Distribution outside Iran: Afghanistan, Kazakhstan, Kyrgyzstan, former South European territory, former Transcaucasus Republics.

Stenopogon shirazi TOMASOVIC & SAGHAEI, 2009

Distribution in Iran: Fars (TOMASOVIC & SAGHAEI 2009).

Comments: Endemic to Iran.

Stenopogon strataegus GERSTAECCKER, 1862
Stenopogon antar SCHINER, 1867.

Distribution in Iran: Fars (LEHR et al. 2007).

Distribution outside Iran: Greece, Turkey.

Stenopogon theodori LEHR, 1984

Stenopogon variabilis THEODOR, 1980.

Distribution in Iran: Isfahan (SAKENIN et al. 2008a), Semnan (SAKENIN et al. 2010).

Distribution outside Iran: Israel, Jordan.


Stenopogon xanthotrichus (BRULLÉ, 1832)

Dasypogon ochreatus (LOEW, 1847); Stenopogon graecus LOEW, 1855.

Distribution in Iran: Isfahan (LEHR et al. 2007), Semnan (GHAHARI et al. 2008a; NADERIAN et al. 2012).

Distribution outside Iran: Albania, Greece, Romania, Turkey.

Comments: This species was collected in a cotton field. Predatory of Nezara viridula LINNAEUS (Heteroptera: Pentatomidae) (GHAHARI et al. 2008a) and Vespula (Paravespula) germanica (FABRICIUS) (Hymenoptera: Vespidae) (LEHR et al. 2007).

Discussion

The recorded robber fly fauna of Iran comprises 289 species representing 88 genera and 9 subfamilies: Asilinae (31 genera and 93 species and 3 subspecies), Stenopogoninae (23 genera and 89 species and 5 subspecies), Apocleinae (4 genera, 19 species, 1 subspecies), Atomosinae (2 genera, 2 species), Dasypogoninae (7 genera, 28 species), Laphrininae (7 genera, 23 species), Laphystiinae (11 genera, 15 species), Leptogastrinae (2 genera, 7 species, 1 subspecies), and Ommatiinae (1 genus, 3 species). Among the 88 reported genera from Iran, Stenopogon (with 20 species), Saropogon (with 18 species), Machimus (with 14 species), Anemomochtherus (with 12 species), Dioctria (with 11 species), and Dysmachus (with 10 species) are more diverse than the other genera. The diversity of species within the Iranian asilid fauna is illustrated in Figure 2. Iran is comprised of 31 provinces and among them Fars with 75 reported species has the highest diversity (the majority of faunistic surveys were done in this province); followed by Sistan & Baluchestan, Mazandaran, Tehran, Khorasan, Semnan and East Azarbaijan arranged sequentially (Figure 3). No species have been reported thus far from Alborz, Bushehr, Kuhgiloyeh & Boyerahmad, Kordestan, and Qazvin primarily because they have not been systematically sampled.

Predator-prey analysis

Based on a limited number of prey records, a total of 282 species representing 9 Orders were recorded as being taken by Iranian Asilidae: Araneae (one record: 0.35%), Coleoptera (49 records: 17.37%), Diptera (65 records: 23%), Hemiptera (6 records: 2.12%), Hymenoptera (125 records: 44.32%), Lepidoptera (9 records: 3.19%), Neuroptera (8 records: 2.83%), Odonata (one record: 0.35%), and Orthoptera (18 records: 6.38%) (Figure 4).

Based on limited sampling, Iranian robber flies are predators of insects representing species in 60 families, many of which are agricultural and forest pests. A summary of the taxa containing prey items are listed below.
Class Araneae: One record of the family Thomisidae.

Class Hexapoda:

Order Coleoptera. 49 records in 12 families: Alleculidae (1 record), Buprestidae (2 records), Cerambycidae (4 records), Chrysomelidae (8 records), Coccinellidae (5 records), Curculionidae (7 records), Malachiidae (4 records), Melyridae (1 record), Scarabaeidae (4 records), Staphylinidae (11 records), Tenebrionidae (2 records).

Order Diptera. 65 records in 11 families: Bibionidae (1 record), Bombyllidae (6 records), Calliphoridae (4 records), Dolichopodidae (1 record), Muscidae (2 records), Sarcophagidae (8 records), Syrphidae (14 records), Tabanidae (16 records), Tachinidae (5 records), Tephritidae (4 records), Therevidae (2 records).

Order Hemiptera. 6 records in 4 families: Cicadellidae (2 records), Coreidae (1 record), Miridae (2 records), Pentaomidae (1 record).

Order Hymenoptera. 125 records in 19 families: Andrenidae (1 record), Anthophoridae (4 records), Apidae (11 records), Braconidae (2 records), Cephidae (3 records), Chrysididae (1 record), Crabronidae (6 records), Evaniidae (3 records), Formicidae (1 record), Ichneumonidae (3 records), Halticidae (1 record), Megachilidae (1 record), Pamphiliidae (3 records), Platygastridae (1 record), Scoliidae (5 records), Sphecidae (31 records), Tenthredinidae (8 records), Vespidae (35 records).

Order Lepidoptera. 9 records in 5 families Lymantridae (1 record), Noctuidae (2 records), Papilionidae (1 record), Pyralidae (4 records), Tortricidae (1 record).

Order Neuroptera. 8 records in 4 families: Chrissopidae (5 records), Conioptergidae (1 record), Hemerobiidae (1 record), Myrmeleontidae (1 record).

Order Orthoptera. 18 records in 3 families: Acrididae (11 records), Gryllidae (2 records), Tettigidae (5 records).

Comparison of different taxa (Figure 4) indicates that Hymenoptera with 125 recorded species, and Diptera with 65 and Coleoptera with 49 species, are the most common prey for robber flies in Iran. The abundance of Hymenoptera in the insect fauna of the world is reflected in the "Asilidae Predator-Prey Database" produced by Dr. ROBERT LAVIGNE (2003). Of the approximate 58.024 prey in the database, 25.320 are Hymenoptera, or just under one half of the total (DENNIS & LAVIGNE 2007).

As to spiders (Araneae), only one species was reported. Robber flies do not often take spiders as prey (DENNIS et al. 2012). It is assumed that this is, in part, because most robber fly prey are usually captured while they are in flight and predation does not ordinarily take place on the ground, except in the Stenopogon (LOEW, 1847) group (Asilidae: Stenopogoninae) (DENNIS et al. 2012). Although spiders are incapable of flight, they can dangle from silken threads or jump into the air, and so such prey may be considered to have been collected in flight (Londt 2006). Also for the 27 robber fly genera and/or species taken with over 20 prey, 0.2 to 10% were spiders, with an average of 2.5% (DENNIS et al. 2012).

Most species of Asilidae have restricted ecological requirements and are rather locally distributed. Within their broader ranges, individuals tend to be found in isolated, local aggregations (MARTIN 1965). Their specialized habitats and other species-specific specializations, together with their ecological roles as primary predators of insects, make
robber flies significant elements of the ecosystem. Along with butterflies (Lepidoptera), tiger beetles (Coleoptera: Carabidae), and dragonflies (Odonata), robber flies are increasingly viewed as a focal group of conservation concern (BARNES et al. 2007). Many species prey upon honey bees, sometimes causing significant damage to bee colonies (DENNIS & LAVIGNE 2007; LEHR 1964). Some robber flies, in the larval stage, are regarded as potential biological control agents against scarab larvae (WEI et al. 1995).

Although there is a diverse fauna of robber flies in Iran they are general predators which attack and eat several beneficial insects as well as pests; therefore they can not be considered important and efficient agents in biological control programs. However, these dipteran flies are beneficial organisms in a variety of ecosystems and therefore must be conserved along with other natural enemies. Conservation biological control involves manipulation of the environment to enhance the survival, fecundity, longevity and behavior of natural enemies to increase their effectiveness. Such conservation efforts may be directed at mitigating harmful conditions or enhancing favorable ones. Conservation practices can be further categorized as those that focus on reducing mortality, providing supplementary resources, controlling secondary enemies, or manipulating host plant attributes to the benefit of natural enemies (van den Bosch and Telford, 1964). Of the major forms of biological control, conservation biological control has received the least amount of attention (LANDIS et al. 2000). Because of its importance in enhancing natural enemy performance, conservation biological control should be a keystone of all biological control efforts (GURR & WRATTEN 1999).

**Conclusion**

There have been significant advances in our knowledge of Iranian Asilidae since ABBASSIAN-LINTZEN’s (1964a) catalogue listing 22 genera and 39 species. Though many areas of Iran remain poorly sampled, especially areas of north and northwestern Iran, several interesting species have been discovered recently. Summarizing all these data, has greatly improved our understanding of the distribution of Iranian Asilidae. Once additional sampling is completed we can expect additional species to be discovered in the future, probably for a total of 350. Although the taxonomy of Asilidae has been well studied in different regions of the world, the biology and ethology of these predators has been poorly investigated and is a field which lends itself to the aspiring researcher. Additionally, it behooves researchers to make every effort at conserving the environments in which robber flies occur. This checklist is aimed at providing background information for the inquiring researcher.

**Zusammenfassung**

Acknowledgments

The research was supported by Shahre Rey Islamic Azad University, Suleyman Demirel University (Turkey), and Fars Science & Research Branch. The authors are grateful to F. Geller-Grimm (Naturhistorische Landessammlung, Museum Wiesbaden, Germany), and A. Scarbrough (Towson State University, USA) for providing important reprints. We would also like to express our appreciation to Dr. T. Dikow (Smithsonian Institution, Washington, DC, USA) for his insightful comments on an earlier version of this manuscript.

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Fig. 1: Map of Iran with boundaries of Provinces.
Subfamilies of Iranian Asilidae

Fig. 2: Species diversity of subfamilies of Iranian Asilidae.

Provinces of Iran

Fig. 3: Number of reported species of Iranian Asilidae by province.
**Fig. 4**: Number of prey records of Asilidae in Iran.