

## Introduction to the Asilidae Fauna (Insecta: Diptera) of Fars Province, Iran

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**Abstract:** Fars province in the south of Iran was surveyed for Asilidae (Insecta: Diptera) during 2006–2007. Twenty six species, belonging to 19 genera and 7 subfamilies: Apocleinae (5 species), Asilinae (7 species), Dasyopogoninae (2 species), Laphriinae (2 species), Laphystiinae (1 species), Leptogastrinae (1 species) and Stenopogoninae (8 species), were recorded. Of these, 5 species are new to the fauna of Iran. Additionally 2 subfamilies, 10 genera, and 22 species were recorded for the first time from Fars province. Distributional data for each species are included.

**Key Words:** Diptera, Asilidae, fauna, Fars province, Iran

### İran'ın Fars İli'nin Asilidae (Insecta; Diptera) Faunası

**Özet:** İran'ın güneyinde yer alan Fars İli'nde Asilidae faunasını belirlemek amacıyla 2006-2007 yıllarında arazi çalışması yapıldı. Apocleinae (5 tür), Asilinae (7 tür), Dasyopogoninae (2 tür), Laphriinae (2 tür), Laphystiinae (1 tür), Leptogastrinae (1 tür) ve Stenopogoninae (8 tür) alt familyalarından toplam 19 cinse bağlı 26 tür belirlendi. Bu türlerden 5'i İran faunası için yeni kayıt olurken, iki alt familya, 10 cins ve 22 tür de Fars İli'nden ilk defa kaydedildi. Ayrıca, her türün yayılış bilgileri eklendi.

**Anahtar Sözcükler:** Diptera, Asilidae, fauna, Fars, İran

### Introduction

Robber flies (Diptera: Asilidae) belong to the lower Brachycerous Diptera and are distributed world-wide with more than 7000 species. They are distributed in 11 subfamilies and 528 genera (Geller-Grimm, 2003, 2005). Both adults and larvae of robber flies are predators, feeding on various arthropods, mainly insects, and are important agents of biological balance in insect populations (Lehr, 1988; Hayat and Özbek, 1994). The majority of robber fly species are found in dry, sandy conditions, as confirmed by the diversity of species found

in such locales. Some species are well adapted to desert climates, where they are known to thermoregulate in response to temperature variations throughout the day (O'Neill et al., 1988; O'Neill and Shelly, 1990).

There have been few systematic studies of the Iranian Asilidae, none of which has been conducted by researchers from Iran. The first published records of Iranian asilids were those of Portschinsky (1873), who described 2 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

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of N.A. Zarudny from 1898 to 1901, additional species were recorded (Becker and Stein, 1913). Engel (1930) summarized the known distribution of the Asilidae of the Palearctic, recording the species that had been collected in Iran by then. 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 Janssens (1961) commented on species occurring in both Iraq and Iran. Fourteen years later, Abbassian-Lintzen (1964a) made the first definitive study of Iranian Asilidae and, in a later 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 Palestine/Israel region, noted that some of those species also had been recorded in Iran. Geller-Grimm and Hradsky (1999) and Tomasovic (1999, 2002) have recently described additional new species. Biological notes concerning Iranian 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). More recently, Ghahari et al (2007b) provided a list of Iranian species that had taken prey.

In recent years some faunistic studies have been performed on Iranian Asilidae and currently the number of species of this family recorded in Iran has increased to about 227 species (Lehr et al., 2007; Ghahari et al., 2007a; Ghahari et al., 2007b and Hayat et al., 2008). Two subfamilies, Trigonimiminae and Atomosiinae, are not present in Iran. Papers by Abbassian-Lintzen (1964a), Lehr et al. (2007), Ghahari et al. (2007b), and Hayat et al. (2008) contain a few faunistic records for the Asilidae of Fars province, but none of the studies focused specifically on the Asilidae of the area.

Fars province is located in the south of Iran. It is bordered by the provinces Yazd and Isfahan to the North, Kerman to the East, Bushehr to the West, Kohgiluyeh /Boyer-Ahmed to the Northwest and Hormozgan to the southeast. (Figure). The location of Fars province is interesting from a biogeographic point of view. The Fars



Figure. Map of Iran.

Nature Reserve (GPS coordinates 27°2'-31°4'N, 50°42'-55°36'E) occupies a surface of about 1,333,000 km<sup>2</sup>, 12 percent of which is primarily forest with oak and pistachio species predominating; however, no asilids have as yet been collected within the confines of the reserve. There are 3 distinct climatic regions in the Fars province. First, the mountainous area of the north and northwest has moderate cold winters and mild summers. Secondly, the central region has relatively rainy mild winters and hot dry summers. The third region located in the south and southeast has moderate winters and very hot summers. The average temperature of the central region of Shiraz is 16.8 °C, ranging between 4.7° and 29.2 °C. The geographical and climatic variation within the province determines the plant variation. The objectives of this study were to provide detailed information on the distribution of this family in Fars province, and to make an additional contribution to the knowledge of the Iranian asilid fauna.

## Materials and Methods

The asilids were collected at different localities in Fars province, Iran during 2006-2007. They were captured by sweep net in flight or when they were landing on the ground. The specimens are deposited in the insect collection of the Islamic Azad University, Marvdash Branch. Identifications were made using published keys of Engel (1930), Oldroyd (1958), Abbasian-Lintzen (1964a, b), Tsacas (1968), Theodor (1980), and Lehr (1988). The taxa were arranged according to Lehr (1988, 1996), Geller-Grimm (2005), Bosák and Hradsk (2001) and Hayat et al., 2008.

## Results and Discussion

The asilid species collected and identified during this 2-year study period are listed as follows:

### Subfamily Apocleinae Papavero, 1973

#### *Apoclea femoralis* (Wiedemann, 1828)

Synonyms: *Asilus helva* Wiedemann, 1828; *A. illustris* Schiner, 1867; *A. aperta* Becker in Becker & Stein, 1909.

Material Examined: Dasht-e Arzhan, 2 April 2007, 1♂. This is a new record for the fauna of Fars province.

Iranian Records: Baluchestan, Kerman, Khorasan (Becker and Stein, 1913), Iran (Engel, 1930).

Collection Dates: 4-21 July (Becker and Stein, 1913).

#### *Philodicus ponticus* (Bigot, 1880)

Synonymy: *Alcimus bimaculatus* Becker in Becker & Stein, 1913.

Material Examined: Sarvestan, 30 April 2006, 4♂♂; Ali Abad, 15 June 2006, 2♂♂; Shiraz: Akbar Abad, 16 July 2007, 6♂♂; Shiraz: Akbar Abad, 16 May 2007, 4♂♂; Marvdasht: Olia, 15 May 2006, 3♂♂; Shiraz: Dokohak 17 June 2007, 2♂♂; Marvdasht: Fath Abad, 4 May 2007, 5♂♂; Arsanjan, 22 September 2007, 3♂♂; Marvdasht: Dolat Abad 14 May 2007, 4♂♂; Marvdasht: Dolat Abad 25 May 2007, 1♀; Marvdasht: Olia, 14 June 2007, 1♀; Dasht-e Arzhan, 8 July 2007, 2♀♀; Shiraz: Khanezenian, 14 May 2006, 1♀. This is a new record for the fauna of Fars province.

Iranian Records: Baluchestan, Kerman, Khorasan, Sistan (Becker and Stein, 1913), Baluchestan (Oldroyd, 1958), Iran (Engel, 1930; Theodor, 1980), Golestan, Gonbad, Guilan, Rasht (Hayat et al., 2008).

Collection Dates: 10 June-20 September (Becker and Stein, 1913), 28 May-18 June (Oldroyd, 1958), August 2003- July 2004 (Hayat et al., 2008).

Biology: According to Hayat et al. (2008) this species is apparently a wasp hunter, *Vespula germanica* (Fabricius) and *Vespa orientalis* Linnaeus (Hymenoptera: Vespidae) were recorded as prey.

#### *Philodicus spectabilis* Loew, 1871

Material Examined: Jahrom: Hakan, 12 May 2006, 2♀♀. This is a new record for the fauna of Fars province.

Iranian Records: Baluchestan, Makran (Oldroyd, 1958).

Collection Dates: 21 March-22 May (Oldroyd, 1958).

#### *Promachus canus* (Wiedemann, 1818)

Synonymy: *Asilus tessellatus* Pallas in Wiedemann, 1818 (nomen nudum).

Material Examined: Shiraz: Palayeshgah, 13 May 2007, 1♀. This is a new record for the fauna of Fars province.

Iranian Records: Iran (Engel, 1930), Ardabil, Moghan (Hayat et al., 2008).

Collection Date: July 2003 (Hayat et al., 2008).

Biology: Hayat et al. (2008) found this species preying on *Podalonia hirsuta hirsuta* (Scopoli, 1763) (Hymenoptera: Sphecidae). Hayat and Alaoglu (1996a) and Hayat (1997) recorded *Ontophagus* sp. (Coleoptera: Scarabaeoidea), *Andrena* sp. (Hymenoptera: Andrenidae), and *Apis mellifera* Linnaeus (Hymenoptera: Apidae) as prey. Ozbek and Hayat (1999) noted this species as an *A. mellifera* hunter in Turkey.

#### ***Promachus leoninus* Loew, 1848**

Material Examined: Shiraz: Kaftarak, 22 August 2006, 1♀. This is a new record for the fauna of Fars province.

Iranian Records: Iran (Lehr, 1988), Golestan, Gonbad, Kerman, Jiroft (Hayat et al., 2008).

Collection Date: February 2003 - November 2004 (Hayat et al., 2008).

Biology: Hayat et al. (2008) found this species preying on *Polistes dominulus* (Christ) (Hymenoptera: Vespidae).

#### **Subfamily Asilinae Latreille, 1802**

##### ***Antiphrisson adpressus* (Loew, 1849)**

Material Examined: Shiraz: Ab Barik, 21 August 2006, 2♂♂. This is a new record for the fauna of Fars province.

Iranian Record: Khuzestan (Oldroyd, 1958).

Collection Dates: 28 March-6 April (Oldroyd, 1958).

##### ***Antiphrisson trifarius* (Loew, 1849)**

Synonymy: *Asilus sareptanus* Lichtwardt, 1903; *A. thalhammeri* Lichtwardt, 1903.

Material Examined: Dasht-e Arzhan, 11 April 2006, 2♂♂; Shiraz: Kian Abad 11 July 2006, 1♀; Firoz Abad, 21 June 2006, 1♂; Kazeran, 2 July 2006, 1♀; Shiraz: Bamu 8 September 2006, 3♀♀; Shiraz: Ab Barik 21 August 2006, 2♀♀. This is a new record for the fauna of Fars province.

Iranian Record: Mazandaran, Savadkooh (Hayat et al., 2008).

Collection Date: July 1999 (Hayat et al., 2008).

##### ***Machimus aradensis* Theodor, 1980**

Material Examined: Shiraz: Maharlu, 5 July 2006, 1♂. This is a new record for the fauna of Iran and Fars province.

Distribution outside Iran: Israel.

##### ***Machimus idiorrhythmicus* Janssens, 1960**

Material Examined: Marvdasht: Sidan, 27 June 2006, 1♂; Shiraz: Akbar Abad, 12 June 2007, 1♂; Zarghan, 29 May 2007, 1♀; Fasa: Mian-Jangle, 1 August 2007, 1♀. This is a new record for the fauna of Iran and Fars province.

##### ***Machimus nahalalensis* Theodor, 1980**

Material Examined: Shiraz: Quom, 1 September 2006, 1♂; Fasa: Mian-Jangle: 19 August 2007, 2♂♂; Shiraz: Akbar Abad 26 July 2007, 1♀; Shiraz: Daroin 14 July 2007, 2♀♀; Shiraz: Maharlu, 12 July 2006, 3♀♀; Marvdasht: Oliya, 2 June 2006, 2♀♀. This is a new record for the fauna of Iran and Fars province.

##### ***Machimus rusticus* (Meigen, 1820)**

Synonyms: *Asilus genualis* Zeller, 1840; *A. obscurus* Meigen, 1820.

Material Examined: Arsanjan, 22 September 2007, 1♂. This is a new record for the fauna of Fars province.

Iranian Record: Khorasan, Bojnord (Hayat et al., 2008).

Collection Date: April 2004 (Hayat et al., 2008).

Biology: *Amphicoma* sp. (Coleoptera: Scarabaeoidea), *Sphaerophoria scripta* (Linnaeus) (Diptera: Syrphidae), and *Thymelicus sylvestris* Poda (Lepidoptera: Hesperidae) were determined as prey in Turkey (Hayat & Alaoglu, 1996b; Hayat, 1997).

##### ***Satanas gigas* (Eversmann, 1855)**

Material Examined: Kazeran: Nodan, 15 June 2006, 1♂. This is a new record for the fauna of Fars province.

Iranian Record: Baluchestan, Kerman, Khorasan, Sistan (Becker and Stein, 1913), Baluchestan (Oldroyd, 1958), Iran (Engel, 1930), Semnan, Damghan (Hayat et al., 2008).

Collection Dates: 13 May-4 September (Becker and Stein, 1913), 1-28 May (Oldroyd, 1958), September 2004 (Hayat et al., 2008).

Biology: Hayat et al. (2008) were collected this species with *Podalonia hirsuta hirsuta* (Scopoli) (Hymenoptera: Sphecidae) as prey.

**Subfamily Dasypogoninae Macquart, 1838**

***Dasypogon magisi* Tomasovic, 1999**

Material Examined: Shiraz: Akbar Abad, 12 June 2007, 7♂♂; Zarghan, 29 May 2007, 2♀♀; Fasa: Mian-Jangle, 1 August 2007, 2♀♀.

Iranian Records: Fars (Tomasovic, 1999).

Collection Dates: 10-15 June (Tomasovic, 1999).

***Saropogon distinctus* Becker, 1906**

Material Examined: Shiraz: Khanezenian, 8 June 2006, 1 . This is a new record for the fauna of Iran and Fars province.

**Subfamily Laphriinae Macquart, 1838**

***Laphria dizonias* Loew, 1847**

Material Examined: Shiraz: Akbar Abad, 16 May 2007, 2♂♂; Marvdasht: Olia, 15 May 2006, 1♂; Shiraz: Dokohak 17 June 2007, 4♂♂; Marvdasht: Fath Abad, 4 May 2007, 1♂; Zarghan, 28 May 2007, 1♂.

Iranian Records: Fars and Southern Iran (Abbassian-Lintzen, 1964a).

Collection Dates: 2-9 May (Abbassian-Lintzen, 1964a).

Biology: "Collected around fig trees" (Abbassian-Lintzen, 1964a).

***Stiphrolamyra rubicunda* Oldroyd, 1947**

Material Examined: Kazeron, 14 June 2006, 1♂. This is a new record for the fauna of Iran and Fars province.

**Subfamily Laphystiinae Hendel, 1936**

***Laphystia erberi* (Schiner, 1865)**

Synonymy: *Laphyctis arenacea* Paramonov, 1930.

Material Examined: Jahrom: Hakan, 13 May 2006, 1♂. This is a new record for the fauna of Fars province.

Iranian Records: Baluchestan, Khuzestan (Oldroyd, 1958).

Collection Dates: 5 March-10 April (Oldroyd, 1958).

**Subfamily Leptogastrinae Schiner, 1862**

***Leptogaster cylindrica* (De Geer, 1776)**

Synonyms: *Asilus tipuloides* Fabricius, 1775; *A. livida* Geoffroy in Fourcroy, 1785; *A. fusca* Meigen, 1804; *A. nigricornis* Loew, 1847; *A. dorsalis* Dahlbom, 1851.

Material Examined: Zarghan, 28 May 2007, 1♂; Marvdasht: Emad Abad, 15 June 2007, 1♀; Dasht-e Arzhan, 11 April 2007, 1♀. This is a new record for the fauna of Fars province.

Iranian Records: Iran (Lehr, 1988).

**Subfamily Stenopogoninae Hull, 1962**

***Amphisbetetus favillaceus* (Loew in Rosenhauer, 1856)**

Material Examined: Jahrom: Hakan, 10 September 2006, 1♀. This is a new record for the fauna of Fars province.

Iranian Records: Khuzestan (Abbassian-Lintzen, 1964a).

Collection Dates: 14 April-2 June (Abbassian-Lintzen, 1964a).

Biology: Abbassian-Lintzen (1964a) obtained all specimens in the stony semi-desert hills of N Khuzestan, where they flew over the ground for very short distances.

***Crobilocerus spinosus persianus* Geller- Grimm & Hradsky', 1999**

Material Examined: Shiraz: Akbar Abad, 2 May, 2006, 1♂. This is a new record for the fauna of Fars province.

Iranian Records: Iran (Geller-Grimm & Hradsky, 1999).

***Galactopogon hispidus* Engel, 1929**

Material Examined: Shiraz: Qoum, 12 July 2007, 1♂; Shiraz: Maharlu, 29 May 2006, 2♂♂; Shiraz: Akbar Abad, 13 May 2007, 5♂♂; Zarghan: Lapoee, 6 May 2006, 4♀♀; Jahrom: Simakan, 13 May 2006, 1♀; Dasht-e Arzhan, 18 April 2006, 6♀♀; Shiraz: Ab Barik, 12 August 2006, 5♀♀; Zarghan, 23 May 2007, 1♀; Jahrom: Simakan, 5 September 2007, 4♂♂; Ali Abad, 8 June 2007, 2♀♀; Kazeron, 9 April 2007, 3♀♀; Shiraz: Kavar, 17 July 2007, 1♀; Zarghan, 7 May 2006, 4♀♀; Marvdasht: Olia,

10 June 2006, 1♀; Marvdasht: Fath Abad, 27 May 2007, 1♀; Zarghan, 17 April 2007, 1♀.

Iranian Records: Baluchestan, Khuzestan (Oldroyd, 1958), Fars, Khuzestan, SE Iran (Abbassian-Lintzen, 1964a).

Collection Dates: 11-28 March (Oldroyd, 1958), 10 March-10 May (Abbassian-Lintzen, 1964a).

#### ***Habropogon decipiens* Theodor, 1980**

Material Examined: Kazeron: Nodan, 3 July 2006, 1♂; Shiraz: Palayeshgah, 5 June 2007, 1♂; Kazeron, 7 July 2007; Kazeron, 14 June 2006, 1♀. This is a new record for the fauna of Fars province.

Iranian Records: Kermanshah, Kermanshah (Hayat et al., 2008).

Collection Date: September 2000 (Hayat et al., 2008).

Biology: Hayat et al. (2008) collected this species with *Palmodes occitanicus puncticollis* (Kohl) (Hymenoptera: Sphecidae) as prey.

#### ***Heteropogon pyrinus* Hermann, 1906**

Synonymy: *Heteropogon pyrrhinus* Engel, 1925.

Material Examined: Shiraz: Palayeshgah, 7 September 2006, 1♂. This is a new record for the fauna of Fars province.

Iranian Records: Iran (Hermann, 1905; Engel, 1930; Theodor, 1980).

#### ***Pycnopogon mixtus* (Loew, 1847)**

Synonymy: *Dasyopogon anthophorinus* Loew, 1847

Material Examined: Estahban, 1 August 2007; 1♀ Shiraz: Kaftarak, 14 May 2006, 1♀; Shiraz: Dokohak, 10 August 2007, 1♀; Kazeron, 29 July 2006, 2♀♀. This is a new record for the fauna of Fars province.

Iranian Records: Isfahan, Anarak, Kerman, Kahnooj (Lehr et al., 2007)

Collection Date: June 2001, September 2001 (Lehr et al., 2007).

Biology: Lehr et al. (2007) recorded *Malachius* (*Malachius*) *labiatus* Brullé, 1832 (Coleoptera: Malachiidae) in Anarak and *Melanotmethis fuscipennis*

(Redtenbacher, 1889) (Orthoptera: Pamphagidae) in Kerman as prey.

#### ***Stenopogon junceus* (Wiedemann in Meigen, 1820)**

Synonymy: *Dasyopogon tanygastrus* Loew, 1861.

Material Examined: Kohmareh, 5 June 2006, 2♀♀; Shiraz: Bamu, 25 June 2007, 2♀♀; Firoz Abad, 29 June 2006, 1♀; Zarghan, 2 April 2007, 2♀♀; Shiraz: Kaftarak, 13 May 2007, 1♀; Marvdasht: Fath Abad, 25 May 2007, 1♂; Dasht-e Arzhan, 2 July 2007, 4♂♂.

Iranian Records: Azerbaijan, Fars, Khuzestan, NW Iran (Abbassian-Lintzen, 1964a).

Collection Dates: 17 April-27 August (Abbassian-Lintzen, 1964a).

Biology: "Several times *S. junceus* was observed preying on Migratory Locusts, *Schistocerca gregaria* (Forsk.)" (Abbassian-Lintzen, 1964a).

#### ***Stenopogon sciron* (Loew, 1873)**

Synonymy: *Scleropogon theseus* Loew, 1873.

Material Examined: Shiraz: Kaftarak, 2 June 2006, 1♀. This is a new record for the fauna of Fars province.

Iranian Records: Kerman (Abbassian-Lintzen, 1964a), Iran (Engel, 1930; Theodor, 1980).

Collection Date: 17 June (Abbassian-Lintzen, 1964a).

## **Discussion**

During the course of the 2-year study period, 26 species of Asilidae belonging to 19 genera and 7 subfamilies were collected and identified. Among them, 5 species are considered as new records for Iranian Asilid fauna. The total number of Asilid species recorded for Fars province is 47; 2 subfamilies (Apocleinae and Leptogastrinae), 10 genera (*Apoclea* Macquart, 1838; *Philodicus* Loew, 1847; *Promachus* Loew, 1848; *Antiphrisson* Loew, 1849; *Satanas* Jacobson, 1908; *Saropogon* Loew, 1847; *Stiphrolamyra* Engel, 1928; *Amphisbetetus* Hermann, 1906; *Habropogon* Loew, 1847 and *Pycnopogon* Loew, 1847), and 22 species were added (Table). Fars is a large region incorporating various biogeographical areas and climates and we expect that a large number of species remain to be discovered. As it

Table. List of the Asilidae known from Iran.

No.	Species	Distribution in Iran (province)/ References
1	<i>Acrochordomerus aeneus</i> Hermann, 1920	Guilan, Khuzestan (Ghahari et al., 2007a)
2	<i>Amathomyia persiana</i> Hermann, 1912	Baluchestan (Becker and Stein, 1913), Iran (Engel, 1930)
3	<i>Amphisbetetus dorsatus</i> Becker in Becker & Stein, 1913	Baluchestan (Becker and Stein, 1913), Iran (Engel, 1930; Theodor, 1980)
4	<i>Amphisbetetus favillaceus</i> (Loew in Rosenhauer, 1856)*	Khuzestan (Abbassian-Lintzen, 1964a)
5	<i>Anarolius fronto</i> Loew, 1873	NE Tehran (Abbassian-Lintzen, 1964a) Golestan
6	<i>Anarolius jamshidi</i> Abbassian-Lintzen, 1964	(Ghahari et al., 2007a)
7	<i>Anarolius jubatus</i> Loew, 1844	Tehran (Lehr et al., 2007)
8	<i>Ancylorhynchus argyrogaster</i> (Séguy, 1932)	Iran (Lehr, 1988)
9	<i>Ancylorhynchus bicolor</i> (Becker in Becker & Stein, 1913)	Iran (Engel, 1930), Khorasan (Becker and Stein, 1913)
10	<i>Ancylorhynchus farinosus</i> (Becker in Becker & Stein, 1913)	Baluchestan (Becker and Stein, 1913), Iran (Engel, 1930)
11	<i>Andrenosoma atrum</i> (Linnaeus, 1758)	Ardabil (Hayat et al., 2008)
12	<i>Andrenosoma serratum</i> Hermann, 1906	Semnan, Guilan (Ghahari et al., 2007)
13	<i>Aneomochtherus atripes</i> (Oldroyd, 1958)	Baluchestan, Kerman (Becker and Stein, 1913), Iran (Engel, 1930)
14	<i>Aneomochtherus hungaricus</i> (Engel, 1927)	Iran (Tsacas, 1968)
15	<i>Aneomochtherus mesopotamicus</i> (Janssens, 1961)	Iran (Tsacas, 1968)
16	<i>Aneomochtherus mundus</i> (Loew, 1849)	Mazandaran, Golestan (Ghahari et al., 2007a), East Azarbaijan (Hayat et al., 2008)
17	<i>Aneomochtherus perplexus</i> (Becker, 1923)	Iran (Tsacas, 1968), Khuzestan (Oldroyd, 1958), Khuzestan, Mazandaran (Ghahari et al. 2007a), Guilan (Hayat et al., 2008)
18	<i>Aneomochtherus petrishshevae</i> (Stackelberg, 1937)	Iran (Tsacas, 1968)
19	<i>Anisopogon asiaticus</i> Oldroyd, 1963	Mazandaran, Golestan (Ghahari et al., 2007a)
20	<i>Anisopogon hermanni</i> (Engel, 1930)	Fars (Lehr et al., 2007)
21	<i>Antipalus truncatus</i> (Loew, 1849)	Fars (Lehr et al., 2007)
22	<i>Antiphrius adpressus</i> (Loew, 1849)*	Khuzestan (Oldroyd, 1958)
23	<i>Antiphrius trifarius</i> (Loew, 1849)*	Mazandaran (Hayat et al., 2008)
24	<i>Apoclea albipila</i> Becker in Becker & Stein, 1913	Baluchestan, Iran, (Becker and Stein, 1913; Engel, 1930)
25	<i>Apoclea algira</i> (Linné, 1767)	Baluchestan (Oldroyd, 1958)
26	<i>Apoclea continuata</i> Becker in Becker & Stein, 1909	Baluchestan, Iran (Becker and Stein, 1913; Engel, 1930)
27	<i>Apoclea femoralis</i> (Wiedemann, 1828)*	Baluchestan, Kerman, Khorasan (Becker and Stein, 1913), Iran (Engel, 1930)
28	<i>Apoclea helvipes</i> Loew, 1873	Baluchestan, Kerman, Southern Iran (Becker and Stein, 1913; Oldroyd, 1958)
29	<i>Apoclea micracantha</i> Loew, 1856	Iran (Engel, 1930), Mazandaran (Ghahari et al.; 2007a), Isfahan (Ghahari et al., 2007a; Hayat et al., 2008)
30	<i>Apoclea plurisetosa</i> Becker in Becker & Stein, 1909	Baluchestan, Sistan (Becker and Stein, 1913), Iran (Engel, 1930)
31	<i>Apoclea trivialis</i> Loew, 1873	Khorasan (Becker and Stein, 1913)
32	<i>Asiloephesus excisus</i> (Loew, 1848)	Khorasan (Becker and Stein, 1913)
33	<i>Asilus barbarus</i> Linnaeus, 1758	Khuzestan (Hayat et al., 2008)
34	<i>Asilus crabroniformis</i> Linnaeus, 1758	Semnan (Hayat et al., 2008)
35	<i>Asilus lucidus</i> Pallas in Wiedemann, 1818	Kordestan (Hayat et al., 2008)
36	<i>Astochia caspica</i> Hermann, 1917	Iran (Lehr, 1988)
37	<i>Astochia metatarsata</i> Becker in Becker & Stein, 1913	Baluchestan, Kerman (Becker and Stein, 1913), Baluchestan (Oldroyd, 1958), Iran (Engel, 1930)
38	<i>Astochia sodalist</i> (Wulp, 1899)	Iran (Abbassian-Lintzen, 1964a)
39	<i>Cerdistus denticulatus</i> (Loew, 1849)	Isfahan (Lehr et al., 2007)

Table. Continued.

No.	Species	Distribution in Iran (province)/ References
40	<i>Cerdistus manii</i> Schiner, 1867	Mazandaran (Lehr et al., 2007)
41	<i>Choerades fimbriata</i> (Meigen, 1820)	Ardabil (Hayat et al., 2008)
42	<i>Choerades gilva</i> (Linnaeus, 1758)	Mazandaran, Guilan (Ghahari et al. 2007a), Kermanshah (Hayat et al., 2008)
43	<i>Choerades loewi</i> Lehr, 1991	Yazd (Ghahari et al., 2007b)
44	<i>Choerades marginata</i> (Linnaeus, 1758)	East Azarbaijan (Hayat et al., 2008)
45	<i>Choerades ursula</i> (Loew, 1851)	Khorasan, Kerman, Isfahan (Ghahari et al., 2007b)
46	<i>Crobilocerus megilliformis</i> (Loew, 1847)	Fars, Tehran (Abbassian-Lintzen, 1964a)
47	<i>Crobilocerus spinosus persianus</i> Geller-Grimm & Hradsky, 1999*	Isfahan (Geller-Grimm and Hradsky, 1999)
48	<i>Ctenota coerulea</i> (Becker in Becker & Stein, 1913)	Khorasan (Becker and Stein, 1913), Iran (Engel, 1930)
49	<i>Ctenota molitrix</i> Loew, 1873	Baluchestan (Becker and Stein, 1913), Khuzestan and SW Iran (Abbassian Lintzen, 1964a), Iran (Engel, 1930; Theodor, 1980)
50	<i>Cyrtopogon centralis</i> Loew, 1871	Isfahan, Guilan (Ghahari et al., 2007a)
51	<i>Dasypogon diadema</i> (Fabricius, 1781)	Azerbaijan, Fars, Khuzestan and N Iran (Abbassian-Lintzen, 1964a), Iran (Theodor, 1980)
52	<i>Dasypogon irinelae</i> Weinberg, 1986	West Azarbaijan (Hayat et al., 2008)
53	<i>Dasypogon magisi</i> Tomasovic, 1999*	Fars (Tomasovic, 1999)
54	<i>Dasypogon octonotatus</i> Loew, 1869	Mazandaran, Khuzestan (Ghahari et al., 2007a) East Azerbaijan (Hayat et al., 2008)
55	<i>Didymachus picipes</i> (Meigen, 1820)	Fars, Yazd (Lehr et al., 2007)
56	<i>Dioctria abdominalis</i> Becker, 1923	Isfahan (Lehr et al., 2007)
57	<i>Dioctria atricapilla</i> Meigen, 1804	Golestan (Lehr et al., 2007)
58	<i>Dioctria dispar</i> Loew, 1871	Guilan (Hayat et al., 2008)
59	<i>Dioctria flavipennis</i> Meigen, 1820	Isfahan (Ghahari et al., 2007a), Mazandaran (Ghahari et al., 2007a; Hayat et al., 2008)
60	<i>Dioctria gracilis</i> Meigen, 1820	Southern Khorasan (Hayat et al., 2008)
61	<i>Dioctria hyalipennis</i> (Fabricius, 1794)	Sistan and Baluchestan (Hayat et al., 2008)
62	<i>Dioctria linearis</i> (Fabricius, 1787)	Guilan (Hayat et al., 2008)
63	<i>Dioctria lugens</i> Loew, 1873	Iran (Lehr, 1988)
64	<i>Dioctria rufonigra</i> Theodor, 1980	Mazandaran (Lehr et al., 2007)
65	<i>Dioctria striata</i> Theodor, 1980	Fars (Lehr et al., 2007)
66	<i>Dioctria valida</i> Loew, 1856	Isfahan (Lehr et al., 2007)
67	<i>Dysmachus bifurcus</i> (Loew, 1848)	Mazandaran (Lehr et al., 2007)
68	<i>Dysmachus bilobus</i> Loew, 1871	Golestan (Lehr et al., 2007)
69	<i>Dysmachus bimucronatus</i> (Loew, 1854)	Golestan (Lehr et al., 2007)
70	<i>Dysmachus cephalenus</i> Loew, 1871	Fars (Lehr et al., 2007)
71	<i>Dysmachus dasyproctus</i> Loew, 1871	Isfahan (Lehr et al., 2007)
72	<i>Dysmachus fuscipennis</i> (Meigen, 1820)	Isfahan (Lehr et al., 2007)
73	<i>Dysmachus praemorsus</i> (Loew, 1854)	Fars (Lehr et al., 2007)
74	<i>Dysmachus setiger</i> (Loew, 1848)	Tehran (Lehr et al., 2007)
75	<i>Dysmachus stylifer</i> (Loew, 1854)	Golestan (Lehr et al., 2007)
76	<i>Dysmachus tricuspis</i> (Loew, 1848)	Isfahan (Lehr et al. 2007)
77	<i>Eccoptopus longitarsis</i> (Macquart, 1838)	Iran (Theodor, 1980)
78	<i>Echthistus rufinervis</i> (Meigen, 1820)	Fars (Lehr et al., 2007)



Table. Continued.

No.	Species	Distribution in Iran (province)/ References
79	<i>Engelepogon antiochienenensis</i> (Tsacas, 1964)	Mazandaran (Lehr et al., 2007)
80	<i>Engelepogon brunnipes</i> (Fabricius, 1794)	Kordestan (Hayat et al., 2008)
81	<i>Engelepogon cingulifer</i> (Becker in Becker & Stein, 1913)	Baluchestan, Khorasan (Becker and Stein, 1913), Iran (Engel, 1930)
82	<i>Erax grootaerti</i> Tomasovic, 2002	Fars (Tomasovic, 2002)
83	<i>Erebunus farinosus</i> (Becker in Becker & Stein, 1913)	Khorasan (Becker and Stein, 1913)
84	<i>Eremisca heleni heleni</i> (Eflatoun, 1934)	Southern Iran: Gulf of Oman; Siahu, Bander-Abbas (Abbassian-Lintzen, 1964b), Iran (Theodor, 1980)
85	<i>Eremisca shahgudiani</i> Abbassian-Lintzen, 1964	Khuzestan, SE Iran (Abbassian-Lintzen, 1964b)
86	<i>Eriopogon laniger</i> (Meigen, 1804)	Baluchestan (Becker and Stein, 1913)
87	<i>Esatanas shah</i> (Rondani, 1873)	Iran (Engel, 1930)
88	<i>Euscelidia pallasii</i> (Wiedemann, 1818)	Markazi (Hayat et al., 2008)
89	<i>Eutolmus calopus</i> (Loew, 1848)	Golestan (Lehr et al., 2007)
90	<i>Eutolmus fascialis</i> (Loew, 1848)	Tehran (Lehr et al., 2007)
91	<i>Eutolmus mordax</i> (Loew, 1848)	Fars (Lehr et al., 2007)
92	<i>Eutolmus parricida</i> (Loew, 1848)	Mazandaran (Hayat et al., 2008)
93	<i>Galactopogon hispidus</i> Engel, 1929*	Baluchestan, Khuzestan (Oldroyd, 1958), Fars, Khuzestan, SE Iran (Abbassian-Lintzen, 1964a)
94	<i>Glyphotriclis impulvinatus</i> Oldroyd, 1958	Baluchestan (Oldroyd, 1958), Khuzestan (Abbassian-Lintzen, 1964a)
95	<i>Habropogon decipiens</i> Theodor, 1980*	Kermanshah (Hayat et al., 2008)
96	<i>Habropogon doriae</i> Rondani, 1873	Iran (Engel, 1930)
97	<i>Habropogon lineatus</i> Lehr, 1960	East Azerbaijan Iran (Lehr, 1988)
98	<i>Habropogon longiventris</i> Loew, 1847	Tehran (Abbassian-Lintzen, 1964a). Sistan and Baluchestan (Hayat et al., 2008)
99	<i>Habropogon montanus</i> Lehr, 1960	Khuzestan (Abbassian-Lintzen, 1964a)
100	<i>Habropogon similimus</i> Theodor, 1980	Golestan (Lehr et al., 2007)
101	<i>Habropogon verticalis</i> Becker in Becker & Stein, 1913	Baluchestan (Becker and Stein, 1913)
102	<i>Heteropogon lehri</i> Richter, 1968	Mazandaran (Lehr et al. 2007)
103	<i>Heteropogon lugubris mesasiaticus</i> Lehr, 1970	Iran (Lehr, 1988)
104	<i>Heteropogon nubilus</i> (Wiedemann in Meigen, 1820)	Fars (Lehr et al. 2007)
105	<i>Heteropogon pyrinus</i> Hermann, 1906*	Iran (Hermann, 1905; Engel, 1930; Theodor, 1980)
106	<i>Heteropogon scoparius</i> Loew, 1847	Chahar-Mahal and Bakhtiari (Lehr et al., 2007)
107	<i>Heteropogon succinctus</i> Loew, 1847	Isfahan (Lehr et al., 2007)
108	<i>Hippomachus iranensis</i> Londt, 1985	Baluchestan (Londt, 1985)
109	<i>Holopogon dimidiatus</i> (Meigen, 1820)	Golestan (Hayat et al., 2008)
110	<i>Holopogon imbecillus</i> Loew, 1871	Iran, Ob Ali bei Tehran (Oldroyd, 1958)
111	<i>Holopogon nigripennis</i> (Meigen, 1820)	Khorasan (Becker and Stein, 1913)
112	<i>Holopogon nigropilosus</i> Theodor, 1980	Chahar-Mahal and Bakhtiari (Lehr et al., 2007)
113	<i>Iranopogon brandti</i> Timon-David, 1955	Iran (Timon-David, 1955)
114	<i>Jothopogon leucomallus</i> (Loew, 1871)	Baluchestan (Becker and Stein, 1913), Iran (Theodor, 1980)
115	<i>Laphria aurea</i> (Fabricius, 1794)	Mazandaran, Semnan, Qom (Ghahari et al., 2007)
116	<i>Laphria dizonias</i> Loew, 1847*	Fars and Southern Iran (Abbassian-Lintzen, 1964a)
117	<i>Laphria flava</i> (Linnaeus, 1761)	Mazandaran (Hayat et al., 2008)
118	<i>Laphria gibbosa</i> (Linnaeus, 1758)	Khorasan, Yazd (Ghahari et al., 2007b)
119	<i>Laphystia dimidiata</i> Oldroyd, 1958	Khuzestan (Oldroyd, 1958)
120	<i>Laphystia erberi</i> (Schiner, 1865)*	Baluchestan, Khuzestan (Oldroyd, 1958)

Table. Continued.

No.	Species	Distribution in Iran (province)/ References
121	<i>Laphystia latiuscula</i> Loew, 1871	Fars (Abbassian-Lintzen, 1964a)
122	<i>Laphystia lehri</i> Abbassian-Lintzen, 1964	Khuzestan (Abbassian-Lintzen, 1964a)
123	<i>Laphystia sabulicola</i> Loew, 1847	Fars, Isfahan (Ghahari et al., 2007)
124	<i>Leptarthrus brevirostris</i> (Meigen, 1804)	Mazandaran, Golestan (Ghahari et al., 2007b)
125	<i>Leptogaster calceata</i> Engel, 1925	Kordestan, Ilam (Ghahari et al., 2007b)
126	<i>Leptogaster cylindrica</i> (De Geer, 1776)*	Iran (Lehr, 1988)
127	<i>Leptogaster cylindrica hispanica</i> Meigen, 1838	Iran (Lehr, 1988)
128	<i>Leptogaster gracilis</i> Loew, 1847	Baluchestan (Oldroyd, 1958)
129	<i>Leptogaster guttiventris</i> Zetterstedt, 1842	Golestan (Hayat et al., 2008)
130	<i>Leptogaster nartshukae</i> Lehr, 1961	Iran (Lehr, 1988)
131	<i>Leptogaster pubicornis</i> Loew, 1847	Golestan (Hayat et al., 2008)
132	<i>Loewinella virescens</i> (Loew, 1871)	Khuzestan (Oldroyd, 1958)
133	<i>Machimus annulipes</i> (Brullé, 1832)	Guilan, Mazandaran (Ghahari et al. 2007a), Kermanshah, Semnan (Hayat et al. 2008)
134	<i>Machimus aradensis</i> Theodor, 1980*	New record from Iran
135	<i>Machimus armipes</i> Becker in Becker & Stein, 1913	Baluchestan, Kerman (Becker and Stein, 1913), Iran (Engel, 1930), Mazandaran, Golestan (Ghahari et al., 2007a)
136	<i>Machimus elegans</i> (Loew, 1849)	Isfahan (Lehr et al., 2007)
137	<i>Machimus gratiosus</i> Loew, 1871	Chahar-Mahal and Bakhtia (Lehr et al., 2007)
138	<i>Machimus idiorrhythmicus</i> Janssens, 1960*	New record from Iran
139	<i>Machimus modestus</i> (Loew, 1849)	Golestan (Lehr et al., 2007)
140	<i>Machimus nahalalensis</i> Theodor, 1980*	New record from Iran
141	<i>Machimus nevadensis</i> (Strobl in Czerny & Strobl, 1909)	Yazd (Hayat et al., 2008)
142	<i>Machimus rudis</i> Becker, 1923	Fars, Yazd (Lehr et al., 2007)
143	<i>Machimus rusticus</i> (Meigen, 1820)*	Mazandaran, Isfahan (Ghahari et al., 2007a), Khorasan (Hayat et al., 2008)
144	<i>Machimus setibarbus</i> (Loew, 1849)	Isfahan (Lehr et al., 2007)
145	<i>Machimus thoracicus</i> (Loew, 1849)	Baluchestan, Kerman (Becker and Stein, 1913). Khuzestan, Mazandaran (Ghahari et al., 2007a)
146	<i>Machiremisca decipiens</i> (Wiedemann in Meigen, 1820)	Isfahan (Hayat et al., 2008)
147	<i>Molobratia egregia</i> (Loew, 1869)	Fars (Lehr et al., 2007)
148	<i>Molobratia teutonus</i> (Linné, 1767)	Chahar-Mahal & Bakhtiari (Lehr et al., 2007), Isfahan (Hayat et al., 2008)
149	<i>Neoitamus cyanurus</i> (Loew, 1849)	Mazandaran (Hayat et al., 2008)
150	<i>Neoitamus senectus</i> Richter, 1963	West Azerbaijan (Hayat et al., 2008)
151	<i>Neolophonotus pegasus</i> (Loew, 1858)	Baluchestan (Oldroyd, 1958)
152	<i>Nusa infumata</i> (Loew, 1851)	Tehran (Abbassian-Lintzen, 1964a), Iran (Theodor, 1980)
153	<i>Nusa puella</i> (Rondani, 1873)	Iran (Lehr, 1988)
154	<i>Nusa ramifica</i> (Loew, 1871)	Baluchestan, Kerman (Becker and Stein, 1913), Baluchestan (Oldroyd, 1958), Khuzestan (Abbassian-Lintzen, 1964a)
155	<i>Oldroydiana calceatus</i> (Oldroyd, 1958)	Khuzestan (Oldroyd, 1958)
156	<i>Ommatius stackelbergi</i> (Richter, 1960)	Semnan, Tehran (Ghahari et al., 2007)
157	<i>Ommatius tenellus</i> Wulp, 1889	Baluchestan (Oldroyd, 1958)
158	<i>Paraphamartania syriaca</i> (Schiner, 1867)	Tehran, Semnan (Ghahari et al., 2007b)
159	<i>Perasis sussianae</i> Abbassian-Lintzen, 1964	Khuzestan (Abbassian-Lintzen, 1964a)

Table. Continued.

No.	Species	Distribution in Iran (province)/ References
160	<i>Philodicus ponticus</i> (Bigot, 1880)*	Baluchestan, Kerman, Khorasan, Sistan (Becker and Stein, 1913), Baluchestan (Oldroyd, 1958), Iran (Engel, 1930; Theodor, 1980) Mazandaran, Khuzestan, (Ghahari et al., 2007a) Golestan (Hayat et al., 2008)
161	<i>Philodicus spectabilis</i> Loew, 1871*	Baluchestan (Oldroyd, 1958)
162	<i>Philonicus albiceps</i> (Meigen, 1820)	Guilan, Northern Iran (Ricardo, 1920), Mazandaran (Ghahari et al., 2007a), Kordestan (Hayat et al., 2008)
163	<i>Pogonosoma maroccanum</i> (Fabricius, 1794)	Mazandaran, Semnan (Ghahari et al., 2007b)
164	<i>Polyphonus laevigatus</i> Loew, 1848	Khuzestan (Oldroyd, 1958)
165	<i>Polysarca unguate</i> (Wiedemann, 1818)	Guilan (Ghahari et al., 2007a)
166	<i>Promachus canus</i> (Wiedemann, 1818)*	Mazandaran, Guilan (Ghahari et al., 2007a), Ardabil (Hayat et al., 2008)
167	<i>Promachus canus leontochlaenus</i> Loew, 1871	Khorasan (Becker and Stein, 1913), Khuzestan, Isfahan (Hayat et al., 2008)
168	<i>Promachus griseiventris</i> Becker in Becker & Stein, 1913	Baluchestan, Kerman (Becker and Stein, 1913), Baluchestan (Oldroyd, 1958), Iran (Engel, 1930; Theodor, 1980)
169	<i>Promachus leoninus</i> Loew, 1848*	Iran (Lehr, 1988). Isfahan, Mazandaran (Ghahari et al., 2007a), Golestan, Kerman (Hayat et al., 2008)
170	<i>Promachus microlabis</i> Loew, 1857	Isfahan (Ghahari et al., 2007b)
171	<i>Promachus rectangularis</i> Loew, 1854	Baluchestan, Kerman (Becker and Stein, 1913), Iran (Engel, 1930)
172	<i>Psilocurus hypopygialis</i> (Paramonov, 1930)	Khuzestan (Oldroyd, 1958; Abbassian-Lintzen, 1964a)
173	<i>Pycnopogon fasciculatus</i> (Loew, 1847)	Golestan, Mazandaran (Lehr et al., 2007)
174	<i>Pycnopogon hirsutus</i> Becker in Becker & Stein, 1913	Baluchestan (Becker and Stein, 1913)
175	<i>Pycnopogon leucostomus</i> Engel, 1930	Mazandaran (Lehr et al., 2007)
176	<i>Pycnopogon melanostomus</i> Loew, 1874	Khuzestan (Abbassian-Lintzen, 1964a), Mazandaran (Hayat et al., 2008)
177	<i>Pycnopogon mixtus</i> (Loew, 1847)*	Isfahan, Kerman (Lehr et al., 2007)
178	<i>Reminasus ephippium</i> (Macquart, 1855)	Sistan (Becker and Stein, 1913)
179	<i>Rhabdogaster cinerascens</i> (Wulp, 1899)	Kerman (Oldroyd, 1958)
180	<i>Rhadinus megalonix</i> Loew, 1856	Khuzestan (Oldroyd, 1958), Khuzestan (Abbassian-Lintzen, 1964a)
181	<i>Saropogon alternatus</i> Loew, 1873	Baluchestan (Oldroyd, 1958), Azerbaijan (Abbassian-Lintzen, 1964a)
182	<i>Saropogon bijani</i> Abbassian-Lintzen, 1964	Khuzestan (Abbassian-Lintzen, 1964a)
183	<i>Saropogon clauses</i> Becker, 1906	Baluchestan, Khorasan (Becker and Stein, 1913)
184	<i>Saropogon distinctus</i> Becker, 1906*	New record from Iran
185	<i>Saropogon fucatus</i> Loew, 1869	Baluchestan (Becker and Stein, 1913)
186	<i>Saropogon gigas</i> Becker in Becker & Stein, 1913	Baluchestan, Kerman (Becker and Stein, 1913)
187	<i>Saropogon jugulum</i> (Loew, 1847)	Khuzestan (Oldroyd, 1958, Abbassian-Lintzen, 1964a)
188	<i>Saropogon longicornis</i> (Macquart, 1838)	Baluchestan (Becker and Stein, 1913; Theodor, 1980), Sistan and Khorasan (Becker and Stein, 1913), Tehran (Abbassian-Lintzen, 1964a), Iran (Engel, 1930), Mazandaran, Golestan (Ghahari et al., 2007a)
189	<i>Saropogon luctuosus</i> (Wiedemann in Meigen, 1820)	East Azarbaijan (Hayat et al., 2008)
190	<i>Saropogon mofidii</i> Abbassian-Lintzen, 1964	Khuzestan (Abbassian-Lintzen, 1964a)
191	<i>Saropogon platynotus</i> (Loew, 1847)	Mazandaran, Golestan (Ghahari et al., 2007b)
192	<i>Saropogon pollinosus</i> Loew, 1869	Isfahan, Tehran (Ghahari et al., 2007)
193	<i>Saropogon vestitus</i> (Wiedemann, 1828)	Baluchestan (Becker and Stein, 1913), Iran (Theodor, 1980)
194	<i>Satanas gigas</i> (Eversmann, 1855)*	Baluchestan, Kerman, Khorasan, Sistan (Becker and Stein, 1913), Baluchestan (Oldroyd, 1958), Iran (Engel, 1930), Mazandaran (Ghahari et al., 2007a), Semnan (Hayat et al., 2008)

Table. Continued.

No.	Species	Distribution in Iran (province)/ References
195	<i>Scylaticus elamiensis</i> Abbassian-Lintzen, 1964	Khuzestan (Abbassian-Lintzen, 1964a)
196	<i>Scytomedes haemorrhoidalis</i> (Fabricius, 1794)	West Azerbaijan (Hayat et al., 2008)
197	<i>Stenopogon avus</i> (Loew, 1874)	NE Iran, NE Khorasan (Abbassian-Lintzen, 1964a), Iran (Engel, 1930)
198	<i>Stenopogon callosus</i> (Pallas in Wiedemann, 1818)	Fars (Lehr et al., 2007)
199	<i>Stenopogon coracinus</i> (Loew, 1847)	Golestan (Lehr et al., 2007)
200	<i>Stenopogon elongates</i> (Meigen, 1804)	Iran (Lehr, 1988)
201	<i>Stenopogon heteroneurus</i> (Macquart, 1838)	Baluchestan (Becker and Stein, 1913), Fars (Abbassian-Lintzen, 1964a)
202	<i>Stenopogon junceus</i> (Wiedemann in Meigen, 1820)*	Azerbaijan, Fars, Khuzestan, NWIran (Abbassian-Lintzen, 1964a) Mazandran (Ghahari et al., 2007a)
203	<i>Stenopogon laevigatus</i> (Loew, 1851)	Fars (Abbassian-Lintzen, 1964a), Golestan (Hayat et al., 2008)
204	<i>Stenopogon mollis</i> Loew, 1868	Tehran (Lehr et al., 2007)
205	<i>Stenopogon nataliae</i> Richter, 1963	Mazandaran, Golestan (Lehr et al., 2007)
206	<i>Stenopogon nigriventris</i> Loew, 1868	Golestan (Hayat et al., 2008)
207	<i>Stenopogon roederii</i> Bezzi, 1895	Mazandaran (Ghahari et al., 2007a)
208	<i>Stenopogon rufipilus</i> (Loew, 1873)	Northern Khorasan (Abbassian-Lintzen, 1964a), Iran (Engel, 1930)
209	<i>Stenopogon sabaudus</i> harpax Loew, 1868	Kurdistan, Western Iran (Abbassian-Lintzen, 1964a)
210	<i>Stenopogon sciron</i> (Loew, 1873)*	Kerman (Abbassian-Lintzen, 1964a), Iran (Engel, 1930; Theodor, 1980)
211	<i>Stenopogon sciron superbus</i> (Portschinsky, 1873)	Baluchestan (Oldroyd, 1958), Iran(Engel, 1930)
212	<i>Stenopogon strataegus strataegus</i> Gerstaecker, 1862	Fars (Lehr et al., 2007)
213	<i>Stenopogon xanthotrichus</i> (Brullé, 1832)	Isfahan (Lehr et al., 2007)
214	<i>Stichopogon albellus</i> Loew, 1856	Baluchestan (Oldroyd, 1958), Khuzestan (Abbassian-Lintzen, 1964a)
215	<i>Stichopogon auritinctus</i> Abbassian-Lintzen, 1964	Azerbaijan (Abbassian-Lintzen, 1964a)
216	<i>Stichopogon caucasicus</i> Bezzi, 1910	Baluchestan, Kerman (Oldroyd, 1958), Azerbaijan (Abbassian-Lintzen, 1964a)
217	<i>Stichopogon chrysostoma</i> Schiner, 1867	Khorasan (Becker and Stein, 1913), Tehran (Abbassian-Lintzen, 1964a)
218	<i>Stichopogon elegantulus elegantulus</i> (Wiedemann in Meigen, 1820)	Golestan, Sistan & Baluchestan, East Azarbayjan (Ghahari et al., 2007b)
219	<i>Stichopogon scaliger conjungens</i> Bezzi, 1910	Azerbaijan (Abbassian-Lintzen, 1964a), Baluchestan and Kerman (Becker and Stein, 1913), Guilan (Ghahari et al., 2007a)
220	<i>Stichopogon schineri</i> Koch, 1872	Baluchestan (Oldroyd, 1958)
221	<i>Stiphrolamyra pleskei</i> (Becker in Becker & Stein, 1913)	Baluchestan, Kerman (Becker and Stein, 1913), Iran (Engel, 1930)
222	<i>Stiphrolamyra rubicunda</i> Oldroyd, 1947*	New record from Iran
223	<i>Tolmerus cingulatus</i> (Fabricius, 1781)	Khorasan (Becker and Stein, 1913), Iran (Engel, 1930)
224	<i>Tolmerus facialis</i> Becker in Becker & Stein, 1913	Baluchestan (Becker and Stein, 1913)
225	<i>Tolmerus tivoensis</i> Theodor, 1980	Golestan (Ghahari et al., 2007b)
226	<i>Trichardis leucocomus</i> (Wulp, 1899)	Khuzestan (Oldroyd, 1958); Abbassian-Lintzen, 1964a), Iran (Theodor, 1980)
227	<i>Trichardopsis richteri</i> Oldroyd, 1958	Southern Iran (Oldroyd, 1958), Khuzestan (Abbassian-Lintzen, 1964a)
228	<i>Trichomachimus klapperichi</i> Moucha & Hradsk , 1964	Golestan (Ghahari et al., 2007a)
229	<i>Trichomachimus oldroydi</i> Moucha & Hradsk , 1964	Guilan (Ghahari et al., 2007a)
230	<i>Triclis olivaceus</i> (Loew, 1851)	Iran (Theodor, 1980)
231	<i>Turkiella cervinus</i> (Loew, 1856)	Iran (Becker and Stein, 1913; Engel, 1930)
232	<i>Udenopogon inscriptus</i> Becker in Becker & Stein, 1913	Baluchestan and Kerman (Becker and Stein, 1913), Iran (Engel, 1930)

\* = record in the present study from Fars.

seems that Asilid species in Iran are important predators of other insects (Lehr et al., 2007; Hayat et al., 2008), further study of their occurrence and biology, especially prey specificity, should be encouraged.

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