



Entomofauna

ZEITSCHRIFT FÜR ENTOMOLOGIE

Band 31, Heft 9: 85-96

ISSN 0250-4413

Ansfelden, 19. November 2010

Spider Wasps (Hymenoptera, Pompilidae) from North of Iran, Mazandaran

N. AMIRESMAEILI KENARI, Sh. IRANIPOUR, E. EBRAHIMI, H. BARARI & R. WAHIS

Abstract

In this study, the data of 166 pompilid specimens collected from central regions of Mazandaran Province (north of Iran) during 2007-2008, were considered and examined. In total, 16 species belonging to two subfamilies of Pompilidae, namely Pompilinae (seven species) and Pepsinae (nine species) were identified. Of those, one genus (*Aporus* SPINOLA, 1808) and eight species: *Anoplius nigerrimus* (SCOPOLI, 1763), *Aporus bicolor* SPINOLA, 1808, *Auplopus rectus* (HAUPT, 1927), *Episyron arrogans* (SMITH, 1873), *Pamirospila magiana* ZONSTEIN, 2000, *Priocnemis fahringeri* WOLF, 1963, *Priocnemis melanosoma* KOHL, 1880 and *Priocnemis sulci* BALTHASAR, 1943 are new records for the Iranian fauna. All the genera are new record for Mazandaran province except *Anoplius* DUFOUR, 1834 and *Cryptocheilus* PANZER, 1806.

Key words : Fauna, Pompilinae, Pepsinae, new records, sampling methods.

Zusammenfassung

Vorliegende Arbeit basiert auf Material von 166 Pompilidae, das im Zeitraum 2007-2008 in Nordiran (aus dem zentralen Gebiet der Provinz Mazandaran) gesammelt wurde. Insgesamt wurden 16 Arten der Unterfamilien Pompilinae (7 Arten) und Pepsinae (9 Arten) nachgewiesen. Davon sind eine Gattung (*Aporus* SPINOLA, 1808) und acht Arten (*Anoplius nigerrimus* (SCOPOLI, 1763), *Aporus bicolor* SPINOLA, 1808, *Auplopus rectus*

(HAUPT, 1927), *Episyron arrogans* (SMITH, 1873), *Pamirospila magiana* ZONSTEIN, 2000, *Priocnemis fahringeri* WOLF, 1963, *Priocnemis melanosoma* KOHL, 1880 und *Priocnemis sulci* BALTHASAR, 1943) neu für die Fauna des Irans. Alle Gattungen mit Ausnahme von *Anoplius* DUFOUR, 1834 und *Cryptocheilus* PANZER, 1806 sind neu für die Provinz Mazandaran.

Introduction

Pompilidae, also known as "spider wasps", is a moderately sized cosmopolitan family of Hymenoptera, with approximately 5.000 species in more than 230 genera worldwide (WASBAUER 1995). They are slender wasps with long, spiny legs, posterodorsal margin of pronotum usually weakly but sometimes moderately concave and somewhat quadrate, also a very diagnostic transverse sulcus present across the mesopleuron. Typical coloration tends to be black, black and red or yellow, sometimes with metallic reflection. Most spider wasps are dark but some are brightly colored, with smoky or yellowish wings and some abdominal terga have yellowish or reddish spots.

The adult pompilids and their larvae feed on flowers and paralyzed spiders, respectively. Females of them prey exclusively upon spiders (hence the common name, spider wasps) (EVANS & YOSHIMOTO 1962). They paralyze the spiders through stinging their nerve centers. Female wasp digs nest in the ground by scraping soil backward with her forelegs before or after hunting (depend on species). However, a few species make free nests above ground, usually in protected places or with thick mud walls. The hunter carries the paralyzed spider in the nest and then lays an egg on the prey body. The eggs hatch and the larvae feed on live, paralyzed spiders until it is time to pupate (EVANS & SHIMIZU 1996).

The pompilid fauna of Iran is not well studied and only little information is available about their occurrence, distribution, taxonomic and biologic status (EBRAHIMI et al. 2008). ESMAILI & RASTEGAR (1974) reported four species from Damavand (in vicinity of Tehran). WOLF (2003) and EBRAHIMI et al. (2008) reported nine and 43 species from various parts of Iran, respectively.

In the present study, a faunistic survey was carried out on family Pompilidae in central regions of Mazandaran province.

Material and Methods

Sampling area. Mazandaran province is located at north of Iran along the southern coast of Caspian Sea. It is situated between 35°47' to 36°35'N and 50°34' to 54°10'E, which ranges in altitude from 21 to 2120 m above sea level.

The materials were collected from different parts of Mazandaran province during 2007-2008. The geographical coordinates of sampling area are given in table 1.

Sampling methods and instruments. Sweeping net, window traps, Malaise traps and color traps were used for collecting pompilid specimens. They will be presented hereafter as SN, WT, MT and CT respectively.

WT usually use for capturing coleoptera, but we used from this method for sampling pompilids that it was very useful in this purpose. Each WT consisted of a vertically-held, transparent, glass sheet (window), 100 cm in height and 85 cm in width, embedded in a metal frame. The sheet had a plastic gutter tray along its bottom edge (BARARI 2005). The tray was half-filled with water containing 1% detergent. Each trap was erected about 10 cm from the ground. They were set up in February 2008 until December 2009 in two places.

Each MT (TOWNES 1962) was made of fine black and white net. The trap was 200 cm long and 200 cm sloping bilaterally to 150 cm high. The top and sloping canopy of the trap was in white and black color, respectively. The open side of the trap was 150 cm at the highest point. The trap was bidirectional with a vertical black net serving as a baffle in the middle. Each trap was supported by string fastened to seven wooden poles, and by nine tent pegs. Each trap was surmounted by a white, plastic collecting pot. The collecting pot was a third-filled with 100% ethanol and 1% glycerin. Three set of MTs were set up in July 2007 and remained in position until November 2007 and four ones were set up in February 2008 and remained in position until December 2008.

Each CT was a cup-like container with 145 and 100 mm diameters at top and bottom, respectively, with 100 mm deep. Three sets of the traps used were yellow, blue and white. Each CT half-filled with an aqueous solution of 10 drops per liter of detergent. The traps were positioned about 100 cm from the ground in four areas in February 2008 and remained in position until December 2008.

Identification. Genera were identified using WOLF (1992) identification keys, and specimens sent to Dr. Raymond WAHIS from Gembloux Agricultural University of Belgium to confirm and identify species. The specimens are kept in the insect collection of Agricultural and Natural Resources Research Centre of Mazandaran (Sari) and Hike Mirzayans Insect Museum (HMIM, Tehran). The data in the present study is given under the titles, material examined and note. Each material examined was arranged in the following way: city, village, collecting date (day/month/year), number of specimens, male or female and collecting method. In the note of each species, comments and discussion about its distribution in Mazandaran and Iran are given in brief.

Results

In total, 166 pompilid specimens belonging to 16 species of 8 genera from two subfamilies (Pompilinae and Pepsinae) were collected and identified as follows. Of those, 8 and 14 species are new records for Iran and Mazandaran, respectively.

Subfamily P o m p i l i n a e LATREILLE, 1805

Genus *Anoplius* DUFOUR, 1834

***Anoplius nigerrimus* (SCOPOLI, 1763)**

M a t e r i a l s e x a m i n e d : Babol, Booleh-Kola, 07.VII.08, 4♂♂ (CT), 1♂ (SN); Nour, 15.XI.08, 1♀ (SN); Sari, Pahneh-Kola, 24.VI.08, 1♂ (WT); Nour, 16.VIII.08, 4♂♂, 2♀♀ (SN).

D i s t r i b u t i o n : Austria, Belarus, Belgium, Bosnia and Herzegovina, Britain I. (Incl. Shetlands, Orkneys, Hebrides and Man Is.), Bulgaria, Channel (Is. Incl. Jersey, Guernsey, Alderney), Corsica, Czech Republic, Danish mainland (Incl. Borholm I.), Finland, French mainland, Germany, Greek mainland (Incl. Andikithira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Luxembourg, Norwegian mainland, Poland, Portuguese mainland, Romania, Russia Central, Sardinia, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)), Slovakia, Spanish mainland (Incl. Alboran I.), Sweden (Incl. Gotland I.), The Netherlands (WAHIS 2007).

N o t e : They were abundant on the *Sambucus ebulus* (Caprifoliaceae) in the Nour Forest at 12-14. This species is a new record for the Iranian fauna.

***Anoplius samariensis* (PALLAS, 1771)**

M a t e r i a l s e x a m i n e d : Sari, Haft-Khal, 18.VII.08, 1♀ (CT); Behshahr, Rostam-Kola, 06.VII.08, 1♀ (SN).

D i s t r i b u t i o n : Bosnia and Herzegovina, Corsica, French mainland, Greek mainland (Incl. Andikithira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Portuguese mainland, Romania, Russia Central, Sardinia, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)), Spanish mainland (Incl. Alboran I.), Switzerland (WAHIS 2007).

N o t e : EBRAHIMI et al. (2008) have reported it (female only) from Mazandaran province without mentioning exact collecting locality.

***Anoplius viaticus* (LINNAEUS, 1758)**

M a t e r i a l s e x a m i n e d : Sari, Pahneh-Kola, 31.IX.08, 1♀ (CT); Sari, Pahneh-Kola, 01.VIII.08, 1♀ (WT).

D i s t r i b u t i o n : Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Britain I. (Incl. Shetlands, Orkneys, Hebrides and Man Is.), Bulgaria, Corsica, Cyprus, Czech Republic, Danish mainland (Incl. Borholm I.), Dodecanese Is. (Incl. Alimniá, Árkoí, Astipálaia, Avgonísi, Ankathonísi, Farmakonísi, Ioinianísi, Kálimnos, Kalolímnos, Kandelioúsa, Kárpáthos, Kásos, Khálki, Khamilí, Kínaros, Kos, Léros, Levítha, Lipsóí, Meyísti, Nísiros, Ofidoúsa, Pátmos, Ródhos, Saría, Sími, Sirína, Tílos, Tría Nisiá, Yialí and other smaller islands), Finland, French mainland, Germany, Greek mainland (Incl. Andikithira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Luxembourg, Malta, Norwegian mainland, Poland,

Portuguese mainland, Romania, Russia Central, Sardinia, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)), Slovakia, Spanish mainland (Incl. Alboran I.), Sweden (Incl. Gotland I.), Switzerland, The Netherlands (WAHIS 2007).

Note: EBRAHIMI et al. (2008) had collected it from several regions of Iran. This is a new record for Mazandaran. It was rare in Mazandaran province.

Genus *Aporus* SPINOLA, 1808

***Aporus bicolor* SPINOLA, 1808**

Materials examined: Sari, Posht-Kooh, 23.IX.08, 1♀ (CT); Sari, Haft-Khal, 01.VIII.08, 2♀♀ (CT); Sari, Posht-Kooh, 23.X.08, 2♀♀ (CT); Sari, Haft-Khal, 16.VIII.08, 1♀ (CT); Sari, Haft-Khal, 12.VI.08, 1♀ (CT); Sari, Haft-Khal, 16.VIII.08, 5♀♀ (CT).

Distribution: Bosnia and Herzegovina, Bulgaria, Corsica, Croatia, Cyprus, Czech Republic, French mainland, Greek mainland (Incl. Andikithira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Malta, Portuguese mainland, Russia Central, Sardinia, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)), Spanish mainland (Incl. Alboran I.), Yugoslavia (Incl. Serbia, Kosovo, Voivodina, Montenegro) (WAHIS 2007).

Note: This is new record for Iranian fauna.

Genus *Batozonellus* ARNOLD, 1937

***Batozonellus lacerticida* (PALLAS, 1771)**

Materials examined: Savad-Kooh, Parsi, 22.VIII.08, 1♀ (SN); Sari, Pahneh-Kola, 15.VII.08, 1♂ (WT); Sari, Dasht-e-Naz, 01.VIII.08, 2♀♀ (MT); Sari, Pahneh-Kola, 01.VIII.08, 1♀ (WT); Sari, Dasht-e-Naz, 27.V.08, 1♀ (MT); Sari, Semeskandeh, 20.XI.07, 1♂ (MT); Sari, Pahneh-Kola, 12.IX.08, 1♀ (WT); Juybar, 22.X.08, 1♀ (SN); Sari, Semeskandeh, 21.VIII.07, 1♂ (MT).

Distribution: Albania, Austria, Belarus, Bosnia and Herzegovina, Bulgaria, Corsica, Cyprus, Czech Republic, French mainland, Germany, Italian mainland, Malta, Norwegian mainland, Poland, Portuguese mainland, Romania, Russia Central, Sardinia, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)), Slovakia, Spanish mainland (Incl. Alboran I.), Sweden (Incl. Gotland I.) (WAHIS 2007).

Note: It had already been reported from Iran by ESMAILI & RASTEGAR, (1974) without mentioning exact locality, also only one female from Gilan, 10 km S SE Kalacay 2001 by EBRAHIMI et al. (2008). This species was found in different forest areas.

Genus *Episyron* SCHIÖDTE, 1837

***Episyron arrogans* (SMITH, 1873)**

Materials examined: Qaem-Shahr, Jaddeh-Nezami, 30.VIII.07, 1♀ (MT); Sari, Pahneh-Kola, 01.VIII.08, 6♂♂, 1♀ (WT); Qaem-Shahr, Jaddeh-Nezami, 28.VI.08, 1♀ (MT); Qaem-Shahr, Jaddeh-Nezami, 31.XI.07, 1♂ (MT); Qaem-Shahr, Jaddeh-Nezami, 31.VIII.07, 1♀ (MT); Sari, Pahneh-Kola, 13.VI.08, 1♂ (WT).

Distribution: Austria, Belarus, Bosnia and Herzegovina, Corsica, Czech Republic, French mainland, Germany, Greek mainland (Incl. Andikithira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Romania, Slovakia, Slovenia, Spanish mainland (Incl. Alboran I.), Switzerland (WAHIS 2007).

Note: This is a new record for Iran.

Genus *Pamirospila* WOLF, 1970

***Pamirospila magiana* ZONSTEIN, 2000**

Materials examined: Sari, Pahneh-Kola, 12.VI.08, 1♂ (WT); Beh-Shahr, Mohammad-Abad, 02.IX.08, 1♀ (SN); Qaem-Shahr, Jaddeh-Nezami, 09.VIII.08, 1♀ (MT).

Distribution: Turkmenia (ZONSTEIN, 2000).

Note: It is new for Iranian fauna.

Subfamily *Pepsinae* LEPELETIER, 1845

Genus *Auplopus* SPINOLA, 1841

***Auplopus carbonarius* (SCOPOLI, 1763)**

Materials examined: Sari, Farah-Abad, 04.V.08, 1♂, 2♀♀ (SN); Qaem-Shahr, Jaddeh-Nezami, 09.VIII.08, 3♀♀ (MT); Sari, Pahneh-Kola, 01.VIII.08, 1♂, 3♀♀ (WT) 1♀ (CT); Sari, Dasht-e-Naz, 19.X.08, 1♂ (MT); Qaem-Shahr, Jaddeh-Nezami, 25.X.08, 1♀ (MT); Qaem-Shahr, Jaddeh-Nezami, 28.VI.08, 3♂♂, 2♀♀ (MT); Sari, Alamdar-Deh, 19.V.08, 2♀♀ (WT); Babol, Langoor, 10.VI.08, 1♂ (SN); Sari, Alamdar-Deh, 12.IX.08, 1♂ (WT); Babol, Marzoon-Abad, 06.IV.08, 2♀♀ (SN); Qaem-Shahr, Jaddeh-Nezami, 21.XI.07, 1♂ (MT); Sari, Pahneh-Kola, 13.VI.08, 1♂ (WT); Sari, Pahneh-Kola, 15.VII.08, 1♀ (WT).

Distribution: Albania, Austria, Belgium, Bosnia and Herzegovina, Britain I. (Incl. Shetlands, Orkneys, Hebrides and Man Is.), Bulgaria, Channel Is. (Incl. Jersey, Guernsey, Alderney), Corsica, Cyprus, Czech Republic, Danish mainland (Incl. Borholm I.), European Turkey (Incl. Imroz I. - Gökçeada, but not those in the Sea of Marmara), Finland, French mainland, Greek mainland (Incl. Andikithira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Malta, Poland, Portuguese mainland, Romania, Russia Central, Sardinia, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)), Slovakia, Spanish mainland (Incl. Alboran I.), Switzerland, The Netherlands (WAHIS 2007).

Note: EBRAHIMI et al. (2008) reported this species from different regions of Iran. This species was more collected around yellow flowers, e.g. *Nonea* sp. (Boraginaceae) using sweep net.

***Auplopus rectus* (HAUPT, 1927)**

Materials examined: Qaem-Shahr, Jaddeh-Nezami, 21.XI.07, 1♀ (MT); Sari, Alamdar-Deh, 12.IX.08, 1♀ (WT); Sari, Alamdar-Deh, 01.VIII.08, 1♀ (CT); Qaem-Shahr, Jaddeh-Nezami, 28.VI.08, 1♂ (MT); Sari, Farah-Abad, 22.IV.08, 1♀ (SN).

Distribution: Albania, Austria, Bosnia and Herzegovina, Corsica, Cyprus, Czech Republic, French mainland, Greek mainland (Incl. Andikithira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Malta, Portuguese mainland, Romania, Russia Central, Sardinia, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)), Slovakia, Spanish mainland (Incl. Alboran I.) (WAHIS 2007).

Note: This is a new record for Iranian fauna.

Genus *Cryptocheilus* PANZER, 1806

***Cryptocheilus discolor* (FABRICIUS, 1793)**

Materials examined: Sari, Posht-Kooh, 15.VIII.08, 1♀ (CT).

Distribution: Bulgaria, Cyprus, Greek mainland (Incl. Andikithira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Russia Central, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)) (WAHIS 2007).

Note: EBRAHIMI et al. (2008) have reported it from different regions of Iran. Only one specimen was collected in Mazandaran.

***Cryptocheilus notatus* (ROSSIUS, 1792)**

Materials examined: Sari, Pahneh-Kola, 12.IX.08, 1♀ (WT); Babol, Langoor, 10.VI.08, 2♀♀ (SN); Sari, Haft-Khal, 01.VIII.08, 4♀♀ (CT); Qaem-Shahr, Jaddeh-Nezami, 28.VI.08, 1♀ (SN); Qaem-Shahr, Jaddeh-Nezami, 21.VIII.07, 1♀ (MT); Sari, Posht-Kooh, 23.X.08, 1♀ (CT); Sari, Alamdar-Deh, 20.VI.08, 1♀ (WT).

Distribution: Albania, Austria, Belarus, Belgium, Bosnia and Herzegovina, Britain I. (Incl. Shetlands, Orkneys, Hebrides and Man Is.), Bulgaria, Channel Is. (Incl. Jersey, Guernsey, Alderney), Corsica, Cyprus, Czech Republic, Danish mainland (Incl. Borholm I.), French mainland, Germany, Greek mainland (Incl. Andikithira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Luxembourg, Poland, Portuguese mainland, Romania, Russia Central, Slovakia, Spanish mainland (Incl. Alboran I.), The Netherlands (WAHIS 2007).

Note: EBRAHIMI et al. (2008) had reported female of this species from Malard (Tehran Province), Khoshnam, 5.XI.1991, also male of it from Elburs, 30 km SE Chalus in 1971. In Mazandaran it was found in miscellaneous areas such as: rice fields, citrus

gardens, broad leaf forests (such as oak trees, hornbeam, common alder, etc) and narrow leaf forests (such as juniper).

***Cryptocheilus octomaculatus* (ROSSIUS, 1790)**

M a t e r i a l s e x a m i n e d : Sari, Pahneh-Kola, 12.IX.08, 1♂ (WT); Sari, Pahneh-Kola, 31.VII.08, 2♀♀ (CT); Sari, Pahneh-Kola, 15.VII.08, 4♂♂ (WT); Sari, Pahneh-Kola, 13.VI.08, 2♂♂ (WT); Sari, Haft-Khal, 16.VIII.08, 1♀ (CT).

D i s t r i b u t i o n : Albania, Bosnia and Herzegovina, Corsica, Cyprus, French mainland, Greek mainland (Incl. Andikíthira I., Evvia I., Ionian Is., Samothráki I., Northern Sporades Is., Thásos I.), Italian mainland, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)), Spanish mainland (Incl. Alboran I.) (WAHIS 2007).

N o t e : EBRAHIMI et al. (2008) reported it from Babolsar without mentioning exact collecting locality. It was collected in a large number.

***Cryptocheilus versicolor* (SCOPOLI, 1763)**

M a t e r i a l s e x a m i n e d : Sari, Pahneh-Kola, 17.V.08, 1♂ (WT); Sari, Alamdar-Deh, 19.IX.08, 1♀ (WT); Sari, Alamdar-Deh, 25.V.08, 3♂♂ (WT); Sari, Pahneh-Kola, 12.IX.08, 1♂, 1♀ (WT); Sari, Haft-Khal, 16.VIII.08, 4♀♀ (CT); Sari, Alamdar-Deh, 19.V.08, 1♂ (WT); Sari, Pahneh-Kola, 13.VI.08, 3♀♀ (WT); Sari, Alamdar-Deh, 13.VI.08, 2♂♂, 1♀ (WT); Sari, Posht-Kooh, 23.X.08, 1♂ (CT); Sari, Dasht-e-Naz, 27.V.08, 3♀♀ (MT); Sari, Alamdar-Deh, 20.VI.08, 1♀ (WT); Babol, Langoor, 10.VI.08, 2♂♂ (SN); Sari, Pahneh-Kola, 15.VII.08, 1♀ (WT).

D i s t r i b u t i o n : Albania, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Corsica, Cyprus, Czech Republic, Germany, Italian mainland, Poland, Portuguese mainland, Romania, Russia Central, Sardinia, Sicily (Incl. adjacent Italian islands (Lipari Is., Ustica I., Egadi Is., Pantelleria I., Pelagie Is.)), Slovakia, Spanish mainland (Incl. Alboran I.), Switzerland (WAHIS 2007).

N o t e : EBRAHIMI et al. (2008) have reported it from Northeastern (Ardabil, 15.VIII.91) and North of Iran (Gorgan) that did not cite exact collecting locality. It was collected in a large number by various methods in Mazandaran.

Genus *Priocnemis* SCHIÖDTE, 1837

***Priocnemis fahringeri* WOLF, 1963**

M a t e r i a l s e x a m i n e d : Sari, Pahneh-Kola, 24.VI.08, 6♂♂ (WT); Qaem-Shahr, Jaddeh-Nezami, 10.V.08, 3♂♂ (MT); Sari, Pahneh-Kola, 28.VI.08, 1♂ (WT); Sari, Haft-Khal, 16.VIII.08, 1♀ (CT).

D i s t r i b u t i o n : Unknown.

N o t e : It is new record for Iran.

***Priocnemis melanosoma* KOHL, 1880**

Materials examined: Nour, 15.VIII.08, 1♀ (SN); Qaem-Shahr, Jaddeh-Nezami, 28.VI.08, 1♀ (MT); Qaem-Shahr, Jaddeh-Nezami, 07.VI.08, 1♀ (MT); Qaem-Shahr, Vaskas, 12.VII.08, 1♀ (SN); Sari, Pahneh-Kola, 01.VIII.08, 1♀ (WT); Nour, 16.VIII.08, 1♀ (SN); Babol, Marzoon-Abad, 06.IV.08, 1♀ (SN); Sari, Pahneh-Kola, 15.VII.08, 2♂♂ (WT).

Distribution: Austria, Czech Republic, Dodecanese Is. (Incl. Alimniá, Árkoi, Astipálaia, Avgonísi, Ankathonísi, Farmakonísi, Ioinianísi, Kálimnos, Kalolímnos, Kandelioúsa, Kárpáthos, Kásos, Khálki, Khamilí, Kínaros, Kos, Léros, Levítha, Lipsói, Meyísti, Nísiros, Ofidoúsa, Pátmos, Ródhos, Saría, Sími, Sírina, Tílos, Tría Nisiá, Yialí and other smaller islands), Poland, Romania, Slovakia (WAHIS 2007).

Note: This is new report from Iran.

***Priocnemis sulci* BALTHASAR, 1943**

Materials examined: Kia-Sar, Varand, 01.IV.08, 1♀ (SN); Sari, Pahneh-Kola, 12.VI.08, 2♀♀ (CT); Sari, Haft-Khal, 19.V.08, 2♀♀ (CT); Sari, Haft-Khal, 11.IX.08, 2♀♀ (CT); Sari, Haft-Khal, 12.VI.08, 3♀♀ (CT); Sari, Posht-Kooh, 06.VIII.08, 1♀ (CT); Sari, Dasht-e-Naz, 19.VI.08, 1♀ (CT).

Distribution: Austria, Britain I. (Incl. Shetlands, Orkneys, Hebrides and Man Is.), Czech Republic, Dodecanese Is. (Incl. Alimniá, Árkoi, Astipálaia, Avgonísi, Ankathonísi, Farmakonísi, Ioinianísi, Kálimnos, Kalolímnos, Kandelioúsa, Kárpáthos, Kásos, Khálki, Khamilí, Kínaros, Kos, Léros, Levítha, Lipsói, Meyísti, Nísiros, Ofidoúsa, Pátmos, Ródhos, Saría, Sími, Sírina, Tílos, Tría Nisiá, Yialí and other smaller islands), Italian mainland, Romania, Slovakia (WAHIS 2007).

Note: It is new record for Iranian fauna. The specimens, except one that caught with sweeping net, were collected with color trap in the forest areas.

Discussion

This study was the only detailed work on the spider wasp fauna of Iran, which improved our knowledge about occurrence of Pompilidae in Mazandaran province. At the present study 16 species were reported, from which 8 and 14 species are new for Iran and Mazandaran, respectively. The 8 new species for Iranian fauna are *Anoplius nigerrimus* (SCOPOLI, 1763), *Aporus bicolor* SPINOLA, 1808, *Auplopus rectus* (HAUPT, 1927), *Episyron arrogans* (SMITH, 1873), *Pamirospila magiana* ZONSTEIN, 2000, *Priocnemis fahringeri* WOLF, 1963, *Priocnemis melanosoma* KOHL, 1880 and *Priocnemis sulci* BALTHASAR, 1943, also one genus namely *Aporus* SPINOLA, 1808 is new for Iran.

Some works on the Iranian pompilids have previously been done. In 1974, ESMAILI & RASTEGAR reported four species namely *Cryptochilus rubellus* (EVERSMANN, 1846), *Batozonellus lacerticida* (PALLAS, 1771), *Anoplius* DUFOUR, 1834 and *Ceropales* LATREILLE, 1796 from Damavand (in vicinity of Tehran). WOLF (2003) reported nine species namely *Agenioideus dichrous* (BRULLÉ, 1840), *A. excisus* (MORAWITZ, 1890), *Anoplius pseudinfuscatus* WOLF, 1998, *A. schlettereri* (RADOSZKOWSKI, 1888),

Dicyrtomellus dubitabilis (SAUNDERS, 1901), *Episyron albonotatum* (VANDER LINDEN, 1827), *Evagetes trispinosus* (KOHLE, 1886), *Paracyphononyx ruficrus* (KLUG, 1834) and *Taeniagenia* HAUPT, 1959 from different regions of Iran.

EBRAHIMI et al. (2008) also have reported 43 species of Pompilidae from various parts of Iran that four species as *Agenioideus excisus* (MORAWITZ, 1890); *Anoplius samariensis* (PALLAS, 1771); *Cryptocheilus octomaculatus* (ROSSIUS, 1790) and *Episyron rufipes* (LINNAEUS, 1758) were belonging to Mazandaran fauna.

In conclusion, 49 pompilid species had previously been reported from Iran. Adding the eight new species reported in our present paper to those, so far, 57 pompilid species and 22 genus has been reported from Iran (ESMAILI & RASTEGAR 1974, WOLF 2003, EBRAHIMI et al. 2008).

Acknowledgements

We are very grateful to Dr. HASSAN BARIMANI from Agricultural and Natural Resources Research Center of Mazandaran, Sari, Iran for his kindly assistance in sampling. We thanks to University of Tabriz that supported financially this study.

References

- BARARI H. (2005): Ecology of the coleopteran stem-mining pests and their parasitoids in winter oilseed rape: implications for integrated pest management. – Ph.D. Thesis in Entomology, Department of Biological Sciences, Imperial College, University of London.
- EBRAHIMI E. (2006): First Report of 34 pompilids from Iran. – Newsletter of Entomological Society of Iran. 8th year. No 33.
- EBRAHIMI E., SCHMID-EGGER C. & R. WAHIS (2008): New Records of Pompilidae (Hymenoptera) from Iran. – Linzer biologische Beiträge **40** (2): 1435-1442.
- ESMAILI M. & R. RASTEGAR (1974): Identified species of Aculeate Hymenoptera of Iran. – Journal of Entomological Society of Iran **2** (1): 41-52.
- TOWNES H. (1962): Design for a Malaise trap. – Proceedings of the Entomological Society of Washington **64**: 253-262.
- WAHIS R. (2007): Fauna Europaea: Pompilidae. Fauna Europaea version 1.3, <http://www.faunaeur.org>.
- WOLF H. (1992): Bestimmungsschlüssel für die Gattungen und Untergattungen der westpaläarktischen Wegwespen (Hymenoptera: Pompilidae). – Mitteilungen des Internationalen Entomologischen Vereins e.V. **17**: 45-119.
- WOLF H. (2003): Wegwespen aus Zentralasien und dem Iran (Hymenoptera, Pompilidae). – Linzer biologische Beiträge **35** (2): 801-811.
- ZONSTEIN S.L. (2000): New data on Middle Asian representatives of the spider wasp genera *Hemipepsis* DAHLBOM, 1843, *Dipogon* FOX, 1897, *Tachyagetes* HAUPT, 1930, *Pareiocurgus* HAUPT, 1962 and *Pamirospila* WOLF, 1970 stat.n. (Hymenoptera, Pompilidae). – Thesis, Entomological Research **2**: 20 pages.

Table 1: Geographical situation of sampling localities in Mazandaran province

| Trap | Locality | Longitude | Latitude | Altitude (m) |
|--------------|---------------------------|--------------|--------------|--------------|
| Color Trap | Sari: Dasht-e-naz | 53°12'27.5"E | 36°41'56.2"N | +20 |
| Malaise Trap | Sari: Dasht-e-naz | 53°12'27.5"E | 36°41'56.2"N | +25 |
| Malaise Trap | Qaem-Shahr | 52°52'56.4"E | 36°28'28.0"N | +31 |
| Malaise Trap | Sari: Semeskandeh | 53°11'11.5"E | 36°33'44.6"N | +40 |
| Malaise Trap | Qaem-Shahr: Jaddeh-nezami | 53°12'26.3"E | 36°42'0.4"N | +98 |
| Malaise Trap | Sari: Pahneh-kola | 53°5'9.66"E | 36°27'14.8"N | +218 |
| Window Trap | Sari: Pahneh-kola | 53°5'9.66"E | 36°27'14.8"N | +218 |
| Color Trap | Sari: Pahneh-kola | 53°5'9.66"E | 36°27'14.8"N | +218 |
| Window Trap | Sari: Alamdar-deh | 53°14'50.6"E | 36°21'21.4"N | +396 |
| Color Trap | Sari: Haft-khal | 53°23'43.1"E | 36°17'16.8"N | +855 |
| Color Trap | Sari: Posht-kooh | 53°46'52.2"E | 36°14'58.7"N | +1501 |

Addresses of the Authors:

Nassim AMIREMAILI KENARI MSc.

Department of Plant Protection, University of Tabriz

51666-14888 Tabriz, Iran

E-mail: n.amiresmaili@gmail.com

Dr. Shahzad IRANIPOUR

Department of Plant Protection, University of Tabriz

51666-14888 Tabriz, Iran

E-mail: shiranipour@tabriz.ac.ir

Dr. Ebrahim EBRAHIMI

Iranian Research Institute of Plant Protection

Po Box 19395 Tehran 1454, Iran.

E-mail: eebrahimi@yahoo.com

Dr. Hassan BARARI

Agricultural and Natural Resources Research Center of Mazandaran

Po Box 48175-556 Sari, Iran.

E-mail: hbarari@yahoo.com

Dr. Raymond WAHIS

Faculté universitaire des Sciences agronomiques,

Entomologie fonctionnelle et évolutive,

Passage des Déportés 2, B-5030 Gembloux, Belgique.

E-mail: raymond.wahis@skynet.be

Druck, Eigentümer, Herausgeber, Verleger und für den Inhalt verantwortlich:

Maximilian SCHWARZ, Konsulent f. Wissenschaft der Oberösterreichischen Landesregierung, Eibenweg 6, A-4052 Ansfelden, E-Mail: maximilian.schwarz@liwest.at.

Redaktion: Erich DILLER, ZSM, Münchhausenstraße 21, D-81247 München;
Roland GERSTMEIER, Lehrstuhl f. Tierökologie, H.-C.-v.-Carlowitz-Pl. 2, D-85350 Freising
Fritz GUSENLEITNER, Lungitzerstr. 51, A-4222 St. Georgen/Gusen;
Wolfgang SCHACHT, Scherrerstraße 8, D-82296 Schöngeising;
Wolfgang SPEIDEL, MWM, Tengstraße 33, D-80796 München;
Thomas WITT, Tengstraße 33, D-80796 München.

Adresse: Entomofauna, Redaktion und Schriftentausch c/o Museum Witt, Tengstr. 33, 80796 München, Deutschland, E-Mail: thomas@witt-thomas.com; Entomofauna, Redaktion c/o Fritz Gusenleitner, Lungitzerstr. 51, 4222 St. Georgen/Gusen, Austria, E-Mail: f.gusenleitner@landesmuseum.at

ZOBODAT - www.zobodat.at

Zoologisch-Botanische Datenbank/Zoological-Botanical Database

Digitale Literatur/Digital Literature

Zeitschrift/Journal: [Entomofauna](#)

Jahr/Year: 2010

Band/Volume: [0031](#)

Autor(en)/Author(s): Amiresmaili Kenari Nassim, Iranipour Shahzad, Ebrahimi Ebrahim, Barari Hassan, Wahis Raymond

Artikel/Article: [Spider Wasps \(Hymenoptera, Pompilidae\) from North of Iran, Mazandaran 85-96](#)