



#### Research Article

On a collection of bee flies (Diptera: Bombyliidae) from Iran

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**ABSTRACT**: Bee flies (Diptera: Bombyliidae) are beneficial insects as pollinators or natural enemies of some agricultural pests. The present paper documents 58 species from 26 genera and six subfamilies (Usiinae, Phthiriinae, Toxophorinae, Heterotropinae, Bombyliinae and Anthracinae) from different parts of Iran. This work also includes the details on collection localities and zoogeographical distribution of the collected species.

KEY WORDS: Bee fly, Bombyliidae, fauna, Iran

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#### INTRODUCTION

Bee flies (Diptera: Bombyliidae) are most frequently found in arid and semi-arid portions of the world, with a few specialized forms occurring in moist tropical climates. Adults are commonly found on flowers, hovering in bright sunlight, or resting on warm, bare ground. Many are pollen and nectar feeders, with some acting as primary pollinators of certain species of desert wildflowers (Hull, 1973). Immatures are infrequently encountered. Larvae of some genera are predators of orthopteroid egg pods, most others are parasites or hyperparasites on immature stages of holometabolous orders of insects including Coleoptera, Diptera, Hymenoptera, Lepidoptera, Neuroptera and Orthoptera or are free-living in soil (Cole, 1969; Bowden, 1980).

The family Bombyliidae includes several significantly differentiated subfamilies. Many different opinions concerning their taxonomic status and position have been formulated in the last few decades (Greathead and Evenhuis 1997; Zaitzev, 1991).

Bombyliidae constitutes one of the large and diverse families of brachycerous Diptera. At present there are around 4547 species known worldwide with 1416 species known from the Afrotropical region and 1337 from the Palaearctic region. The fauna of Iranian Bombyliidae is

diverse and totally 101 species were listed in the catalogue of Evenhuis and Greathead (2003) and then totally 18 species by Greathead and Karimpour (2006), Sakenin *et al.* (2008) and Gharali *et al.* (2010).

#### MATERIALS AND METHODS

The fauna of bee flies was studied in some regions of Iran. Mostly the collections were made by sweeping net and window trap. Besides this, studies were also made on the collected materials of different Universities of Iran. The collected specimens and genitalia were macerated in 10% KOH at room temperature for one day to remove soft tissue, then rinsed in distilled water and dilute glacial acetic acid, and dissected in 80% ethanol. Female reproductive organs were stained with a saturated solution of Chlorazol Black in 40% ethanol. Genitalia preparations were placed in glycerine in a genitalia vial mounted on the pin beneath the specimen (Winterton and Kerr, 2006). Classification, nomenclature, synonymies and distributional data of Bombyliidae (Yeates, 1994; Zaitzev, 1999; Greathead and Evenhuis, 2001; Evenhuis and Greathead, 2003).

#### RESULTS

Totally 58 species of bee flies from 26 genera and 6 subfamilies were collected from different regions of Iran. The list of species is given below with distributional data.

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# Subfamily Usiinae Becker Tribe Apolysini Evenhuis

Genus Apolysis Loew, 1860

# Apolysis dolichorostris Paramonov, 1947

Material: Guilan province: Fooman, 1 female, 2 male, June 2002.

Distribution outside Iran: Armenia, Azerbaijan, Gruzia, Turkmenistan.

#### Tribe Usiini Becker

# Genus Parageron Paramonov, 1929

# Parageron griseus Paramonov, 1947

Material: Hamadan province: Hamadan, 1 male, September 2003. East Azarbayjan Province: Maragheh, 2 female, August 2005.

Distribution outside Iran: Armenia, Azerbaijan, Gruzia, Turkmenistan, Uzbekistan.

#### Parageron lutescens Bezzi, 1925

Material: Khorasan province: Ghoochan, 1 female, 1 male, October 2000.

Distribution outside Iran: Egypt, Turkmenistan, Uzbekistan.

#### Genus Usia Latreille, 1794

#### Subgenus Micrusia Evenhuis, 1990

#### Usia (Micrusia) sicula Egger, 1859

Material: Tehran province: Shahreyar, 1 female, September 2005. East Azarbayjan Province: Aynalo, 1 female, October 2005.

Distribution outside Iran: Croatia, Greece, Italy (incl. Sicily), Macedonia, Slovenia, Syria, Turkey, former Yugoslavia.

#### Subgenus Usia Latreille

#### Usia (Usia) bicolor Macquart, 1855

Material: Kordestan province: Sanandaj, 2 female, 1 male, September 2003.

Distribution outside Iran: Bosnia-Herzegovina, Croatia, Egypt, Greece, Israel, Italy, Kyrgyz Republic, Lebanon, Slovenia, Syria, Turkey, Tajikistan, Turkmenistan, Uzbekistan, former Yugoslavia.

#### Usia (Usia) calva Loew, 1869

Material: Guilan province: Rasht, 3 female, 2 male, June 2002. East Azarbayjan Province: Maragheh, 2 female, June 2005.

Distribution outside Iran: Israel, Syria, Turkey.

# Usia (Usia) florea Fabricius, 1794

Material: Golestan province: Gonbad, 2 male, July 2003. Mazandaran province: Amol, 1 female, 1 male, July 2004. Distribution outside Iran: Algeria, France, Gibraltar, Italy, Kyrgyz Republic, Morocco, Spain, Tajikistan, Tunisia, Turkmenistan.

#### Usia (Usia) transcaspica Paramonov, 1950

Material: Sistan & Baluchestan province: Zabol, 2 female, 3 male, October 2004. East Azarbayjan Province: Khodafarin, 1 female, August 2005

Distribution outside Iran: Armenia, Azerbaijan, Macedonia, Turkmenistan, Uzbekistan.

# Subfamily Phthiriinae Becker Tribe Phthiriini Becker Genus *Phthiria* Meigen, 1820

# Phthiria gracilis Walker, 1852

Material: West Azarbayjan Province: Ourmieh, 1 female, August 2004. Sistan & Baluchestan province: Zabol, 2 female, May 2004.

Distribution outside Iran: India and adjacent countries.

#### Phthiria quadrinotata Loew, 1873

Material: Mazandaran province: Amol, 1 male, July 2007. Distribution outside Iran: Armenia, Azerbaijan, Gruzia, Tajikistan, Turkmenistan, Uzbekistan.

## Phthiria umbripennis Loew, 1846

Material: East Azarbayjan province: Arasbaran, 1 female, October 2003. East Azarbayjan Province: Horand, 2 female, July 2005.

Distribution outside Iran: Armenia, Azerbaijan, Croatia, France, Greece, Gruzia, Israel, Italy, Moldova, Morocco, Romania, Russia, Spain, Syria, Tunisia, Ukraine, former Yugoslavia.

## **Subfamily Toxophorinae Schiner**

#### **Tribe Gerontini Hesse**

Genus Geron Meigen, 1820

# Subgenus Geron Meigen

#### Geron (Geron) gibbosus Olivier, 1789

Material: Kordestan province: Sanandaj, 2 female, 1 male, August 2003. East Azarbayjan Province: Tabriz, 1 female, September 2002.

Distribution outside Iran: France, Greece, Israel, Spain, Turkey.

#### Geron (Geron) griseus Zaitzev, 1962

Material: Khuzestan province: Ahwaz, 2 male, August 2002. Distribution outside Iran: Armenia, Azerbaijan, Gruzia, Lebanon.

# Geron (Geron) longiventris Efflatoun, 1945

Material: Mazandaran province: Behshahr, 2 female, 1 male, June 2001. Tehran, Shahreyar, 1 male, April 2002. Ardabil Province: Aslandooz, 1 male, August 2006.

Distribution outside Iran: China, Egypt, Israel, Tajikistan, Uzbekistan.

#### Geron (Geron) michaili Zaitzev, 1972

Material: Mazandaran province: Nooshahr, 2 female, 1 male, August 2001.

Distribution outside Iran: Algeria, Armenia, Egypt, Mongolia, Tunisia, Turkmenistan, Ukraine.

#### Geron (Geron) olivierii Macquart, 1840

Material: East Azarbayjan Province: Khodafarin, 1 female, July 2005. East Azarbayjan Province: Khodafarin, 1 male, July 2005.

Distribution outside Iran: Palaearctic: Armenia, Croatia, Greece, Italy, Jordan, Spain, Turkmenistan.

#### Geron (Geron) smirnovi Zaitzev, 1978

Material: Khorasan province: Mashhad, 3 male, September 2000

Distribution outside Iran: Greece, Tajikistan, Turkey, Turkmenistan.

# Tribe Toxophorini Schiner

# Genus Toxophora Meigen, 1803

# Toxophora aegyptiaca Efflatoun, 1945

Material: Sistan & Baluchestan province: Chabahar, 2 female, 1 male, April 2004.

Distribution outside Iran: Sudan, Egypt, Oman, Saudi Arabia.

#### Toxophora epargyra Hermann, 1907

Material: Kerman province: Kerman, 3 female, 2 male, July 2003. East Azarbayjan Province: Khomarloo, 1 female, July 2005.

Distribution outside Iran: Sudan, Armenia, Azerbaijan, Egypt, Gruzia, Syria, Tajikistan, Turkey, Turkmenistan, Uzbekistan.

#### Toxophora psammophila Paramonov, 1933

Material: Semnan province: Damghan, 1 female, October 2003. East Azarbayjan Province: Azarshahr, 2 male, September 2005.

Distribution outside Iran: Armenia, Azerbaijan, Gruzia, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan.

#### **Subfamily Heterotropinae Becker**

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#### Genus Heterotropus Loew

#### Heterotropus pallens Nurse, 1922

Material: Sistan & Baluchestan province: Zahedan, 2 female, 1 male, May 2004.

Distribution outside Iran: Pakistan and adjacent countries.

#### Heterotropus pyrus Bowden, 1967

Material: Kordestan province: Marivan, 1 male, September 2004.

Distribution outside Iran: Turkey and adjacent countries.

# Heterotropus sabulosus Paramonov, 1929

Material: Khorasan province: Bojnord, 3 female, August 2004. East Azarbayjan Province: Marand, 1 female, August 2005

Distribution outside Iran: Egypt, Turkmenistan, Uzbekistan.

# Subfamily Bombyliinae Latreille

# Tribe Bombyliini Latreille

# Genus Anastoechus Osten Sacken, 1877

### Anastoechus bahirae Becker, 1915

Material: Khuzestan province: Ahwaz, 2 female, 3 male, November 2002. East Azarbayjan Province: Kaleybar, 2 female, July 2005.

Distribution outside Iran: Kenya, Sudan, Algeria, Egypt, Israel, Libya, Saudi Arabia, Spain, Syria, Tunisia.

#### Anastoechus exalbidus Wiedemann in Meigen, 1820

Material: Khuzestan province: Ahwaz, 2 female, 3 male, November 2002. Bushehr province: Bushehr, 1 male, April 2003. West Azarbayjan: Khoy, 1 male, May 2004. Distribution outside Iran: Sudan, Yemen, Algeria, Armenia, Azerbaijan, Egypt, France, Gruzia, Israel, Italy, Jordan, Kuwait, Lebanon, Oman, Portugal, Saudi Arabia, Spain, Syria, Tunisia, former Yugoslavia.

#### Anastoechus miscens Walker, 1871

Material: Khuzestan province: Ahwaz, 2 female, November 2002. West Azarbayjan Province: Ourmieh, 1 female, August 2004. East Azarbayjan Province: Khodafarin, 1 male, July 2005.

Distribution outside Iran: Eritrea, Sudan, Yemen, Saudi Arabia.

#### Anastoechus stramineus Wiedemann in Meigen, 1820

Material: Golestan province: National Park, 1 female, June 2004. Tehran province: Damavand, 2 female, September 2005. East Azarbayjan Province: Maragheh, 1 female, June 2005.

Distribution outside Iran: Sudan, Algeria, Egypt, France, Israel, Italy, Libya, Portugal, Saudi Arabia, Spain, Tunisia, Turkmenistan.

#### Anastoechus trisignatus Portschinsky, 1881

Material: Isfahan province: Najaf-Abad, 2 male, April 2000. Hamadan province: Malayer, 2 female, 2 male, August 2003. East Azarbayjan Province: Ahar, 1 male, July 2005.

Distribution outside Iran: Algeria, Armenia, Azerbaijan, Bosnia-Herzegovina, Croatia, Egypt, Greece, Gruzia, Israel, Italy, Jordan, Kuwait, Lebanon, Libya, Macedonia, Morocco, Oman, Qatar, Saudi Arabia, Slovenia, Sudan, Syria, Tunisia, Yemen, former Yugoslavia.

# Genus Bombylisoma Rondani, 1856 Bombylisoma melanocephalum Fabricius, 1794

Material: Guilan province: Rasht, 1 female, June 2002, Mazandaran province: Chalus, 1 female, 2 male, August 2004.

Distribution outside Iran: Algeria, Armenia, Austria, Azerbaijan, Czech Republic, France, Gruzia, Hungary, Italy, Moldova, Portugal, Russia, Slovakia, Spain, Switzerland, Tunisia, Turkey, Ukraine.

# Bombylisoma senegalense Macquart, 1840

Material: Khuzestan province: Dezfool, 2 female, 1 male, November 2002. East Azarbayjan Province: Khodafarin, 1 female, June 2005.

Distribution outside Iran: Angola, Botswana, Burkina Faso, Chad, Eritrea, Ethiopia, Gambia, Ghana, Hungary, Italy, Kenya, Malawi, Mali, Mauritania, Mozambique, Niger, Nigeria, Portugal, Senegal, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Uganda, Yemen, Zambia, Zimbabwe, Saudi Arabia, United Arab Emirates.

#### Genus Bombylius Linnaeus, 1758

#### Subgenus Bombylius Linnaeus

#### Bombylius (Bombylius) altivolans François, 1969

Material: Khorasan province: Birjand, 2 female, June 2002. Distribution outside Iran: Afghanistan and adjacent countries.

# Bombylius (Bombylius) ambustus Pallas & Wiedemann in Wiedemann, 1818

Material: Isfahan province: Shahin-Shahr, 3 female, 3 male, October 2003.

Distribution outside Iran: Albania, Armenia, Austria, Azerbaijan, Belarus, China, Croatia, Czech Republic, Estonia, France, Germany, Greece, Gruzia, Hungary, Italy, Kazakhstan, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Poland, Russia, Slovakia, Spain, Switzerland, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.

#### Bombylius (Bombylius) canescens Mikan, 1796

Material: East Azarbayjan Province: Khodafarin, 2 female, June 2005. Golestan province: National Park, 1 female, September 2006.

Distribution outside Iran: Albania, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, France, Germany, Greece, Gruzia, Hungary, Ireland, Italy, Latvia, Libya, Lithuania, Malta, Moldova, Netherlands, Poland, Romania, Russia, Slovakia, Slovenia, Spain, Switzerland, Syria, Turkey, Turkmenistan, UK, Ukraine, former Yugoslavia.

# Bombylius (Bombylius) cinerascens Mikan, 1796

Material: Ardabil Province: Pars-Abad, 1 female, June 2002. East Azarbayjan Province: Abshahmad, 1 male, October 2005. Mazandaran province: Savadkooh, 1 male, September 2006.

Distribution outside Iran: Albania, Armenia, Austria, Azerbaijan, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Egypt, France, Germany, Greece, Gruzia, Hungary, Israel, Italy, Macedonia, Moldova, Poland, Romania, Russia, Saudi Arabia, Slovakia, Slovenia, Spain, Switzerland, Turkey, Ukraine, former Yugoslavia.

#### Bombylius (Bombylius) olivierii Macquart, 1840

Material: Kermanshah province: Paveh, 1 female, May 2002. Ilam province: Ilam, 1 female, 1 male, September 2005. Distribution outside Iran: Iraq and adjacent countries.

# Bombylius (Bombylius) pericaustus Loew, 1873

Material: East Azarbayjan Province: Jolfa, 2 female, September 2006.

Distribution outside Iran: Afghanistan, Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan.

# Bombylius (Bombylius) repeteki ssp. repeteki Paramonov, 1940

Material: Tehran province: Varamin, 1 female, June 2005. Distribution outside Iran: Armenia, Azerbaijan, Gruzia, Israel, Kazakhstan, Tajikistan, Turkmenistan, Uzbekistan.

#### Genus Efflatounia Bezzi, 1925

# Efflatounia aegyptiaca Bezzi, 1925

Distribution in Iran: Khuzestan province: Ahwaz, 2 female, 1 male, November 2002. East Azarbayjan Province: Azarshahr, 2 female, September 2005.

Distribution outside Iran: Egypt, Israel, Libya, Saudi Arabia.

#### Genus Systoechus Loew, 1855

#### Systoechus submicans Greathead, 1980

Material: Bushehr province: Brazjan, 1 female, December 2007.

Distribution outside Iran: Saudi Arabia and adjacent countries.

# Tribe Conophorini Becker

#### Genus Conophorus Meigen, 1803

#### Conophorus glaucescens Loew, 1863

Material: East Azarbayjan Province: Ahar, Maragheh, 3 female, July 2005. Zanjan province: Zanjan, 1 female, 1 male, August 2006.

Distribution outside Iran: Albania, Armenia, Azerbaijan, Bulgaria, Croatia, Greece, Gruzia, Israel, Italy, Moldova, Russia, Turkey, Ukraine, former Yugoslavia.

# Genus Prorachthes Loew, 1869 Prorachthes ledereri Loew, 1869

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Material: West Azarbayjan Province: Mahabad, 1 female, July 2002. Mazandaran province: Amol, 1 female, July 2006. Distribution outside Iran: Greece, Kyrgyz Republic, Tajikistan, Turkey, Turkmenistan, Uzbekistan.

#### **Subfamily Anthracinae Latreille**

#### Tribe Anthracini Latreille

# Genus Anthrax Scopoli, 1763

## Anthrax alagoezicus Paramonov, 1935

Material: Ardabil province: Aslandooz, 1 female, September 2006.

Distribution outside Iran: Palaearctic: Armenia, Azerbaijan, Gruzia.

#### Anthrax chionostigma (Sack, 1909)

Material: West Azarbayjan province: Mahabad, 3 female, 2 male, July 2007.

Distribution outside Iran: Palaearctic: Afghanistan, Armenia, Azerbaijan, France, Greece, Gruzia, Italy, Kazakhstan, Spain, Tajikistan, Uzbekistan.

#### Anthrax monachus (Sack, 1909)

Material: Ardabil province: Ardabil, 1 female, 1 male, September 2008.

Distribution outside Iran: Palaearctic: Armenia, Azerbaijan, Gruzia, Kyrgyz Republic, Tajikistan, Turkmenistan, Turkey, Uzbekistan.

#### Genus Satyramoeba Sack, 1909

#### Satyramoeba bipunctata Fabricius, 1805

Material: Sistan & Baluchestan province: Zabol, 2 female, October 2004.

Distribution outside Iran: Oriental: Bangladesh, India, Pakistan.

# Genus Spogostylum Macquart, 1840

# Spogostylum griseipenne Macquart, 1850

Material: Kordestan province: Sanandaj, 3 female, 3 male, June 2007.

Distribution outside Iran: Afrotropical: Mauritania, Niger. Palaearctic: Egypt, Iraq, Israel, Libya, Saudi Arabia, Tunisia, United Arab Emirates.

#### Genus Turkmeniella Paramonov, 1940

# Turkmeniella transcaspicus Paramonov, 1925

Material: Khorasan province: Serakhs, 1 female, 2 male, August 2008.

Distribution outside Iran: Palaearctic: Tajikistan, Turkmenistan, Uzbekistan.

# Genus *Exoprosopa* Macquart, 1840 *Exoprosopa cleomene* Egger, 1859

Material: Ardabil province: Germy, 2 female, 1 male, July 2006.

Distribution outside Iran: Palaearctic: Armenia, Austria, Azerbaijan, Belgium, Czech Republic, France, Germany, Gruzia, Hungary, Italy, Poland, Russia, Slovakia, Slovenia, Spain, Switzerland, Ukraine.

# Exoprosopa onusta Walker, 1852

Material: Kordestan province: Sanandaj, 1 female, 2 male, June 2007.

Distribution outside Iran: Afrotropical: Yemen. Palaearctic: Bulgaria, Cyprus, Greece, Israel, Saudi Arabia, Syria, Turkev.

# Genus Heteralonia (Rondani, 1863)

# Heteralonia (Homolonia) aegina Wiedemann, 1828

Material: Bushehr province: Brazjan, 1 male, December 2006.

Distribution outside Iran: Afrotropical: Djibouti, Sudan. Palaearctic: Armenia, Azerbaijan, Egypt, Gruzia, Israel, Kyrgyz Republic, Saudi Arabia, Syria, Tajikistan, Turkmenistan, Uzbekistan, Yemen.

#### Heteralonia (Zygodipla) interstitialis Nurse, 1922

Material: Sistan & Baluchestan province, 1 female, October 2004.

Distribution outside Iran: Oriental: Pakistan. Palaearctic: Afghanistan.

# Genus Micomitra Bowden, 1964 Micomitra chrystallina Bozzi 192

# Micomitra chrystallina Bezzi, 1924

Material: Khuzestan province: Ahwaz, 1 female, November 2007.

Distribution outside Iran: Afrotropical: Somalia, Yemen. Palaearctic: Saudi Arabia.

#### Tribe Prorostomatini Hull

#### Genus Stomylomyia Bigot, 1887

# Stomylomyia pusilla Bezzi, 1925

Material: East Azarbayjan province: Tabriz, 2 female, 3 male, September 2008.

Distribution outside Iran: Palaearctic: Armenia, Azerbaijan, Egypt, Gruzia.

#### Tribe Villini Hull

#### Genus Villa Lioy, 1864

#### Villa bizonata Becker, 1916

Material: West Azarbayjan province: Maco, 1 female, August 2005.

Distribution outside Iran: Palaearctic: Turkey.

#### Villa clarissima (Loew, 1857)

Material: East Azarbayjan province: Arasbaran, 4 female, 2 male, July 2007.

Distribution outside Iran: Palaearctic: Armenia, Azerbaijan, Bulgaria, Cyprus, Greece, Gruzia, Israel, Italy, Libya, Syria, former Yugoslavia.

# Villa occulta Wiedemann in Meigen, 1820

Material: East Azarbayjan province: Arasbaran, 1 female, July 2007.

Distribution outside Iran: Palaearctic: Armenia, Austria, Azerbaijan, Belarus, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Gruzia, Hungary, Italy, Kazakhstan, Latvia, Lithuania, Moldova, Mongolia, Poland, Romania, Russia, Spain, Ukraine, former Yugoslavia.

#### Villa tomentosa Becker, 1916

Material: East Azarbayjan province: Tabriz, 1 male, September 2008.

Distribution outside Iran: Palaearctic: Afghanistan, Armenia, Azerbaijan, Greece, Gruzia, Italy, Macedonia, Turkey, former Yugoslavia.

# Genus Villoestrus Paramonov, 1931

# Villoestrus uvarovi Paramonov, 1931

Material: West Azarbayjan: Maco, 1 female, August 2005. Distribution outside Iran: Palaearctic.

#### Tribe Xeramoebini Hull

#### Genus Petrorossia Bezzi, 1908

#### Petrorossia flavipennis Zaitzev, 1966

Material: Ardabil province: Germy, 3 female, July 2006. Distribution outside Iran: Palaearctic: Armenia, Azerbaijan, Egypt, Gruzia, Israel, Kazakhstan, Uzbekistan.

#### Genus Xeramoeba Hesse 1956

# Xeramoeba sabulonis Becker, 1906

Material: West Azarbayjan province: Maco, 1 female, 2 male, August 2005.

Distribution outside Iran: Afrotropical: Sudan. Palaearctic: Algeria, Egypt, Greece, Israel, Macedonia, Tunisia, Turkey, Yugoslavia.

#### DISCUSSION

The bombyliid fauna of Iran, documented in this communication is mostly dominated by the Afrotropical and Palaearctic materials and only 4 species (*Phthiria gracilis*, *Heterotropus pallens*, *Satyramoeba bipunctata* and *Heteralonia* (*Zygodipla*) *interstitialis* extend their distribution up to the Oriental region.

Bee flies are beneficial insects and play an important role as pollinators and pests in almost all the ecosystems. Considering their economic importance, the fauna of Iranian Bombyliidae is poorly studied and the reported number of species is less than 150, while Iran is a large country and therefore a very diverse fauna is expected. Now it is very much necessary to give more emphasis and attention on the researches of these beneficial insects of Iran.

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