

**AN INVESTIGATION TO THE FAUNA OF CIMICOMORPHA  
(HETEROPTERA) FROM PARSABAD-E-MOGHAN  
AND VICINITY, NW IRAN**

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**ABSTRACT:** During 2007-2011 several sampling was conducted to determine specimens five families of true bugs including Anthocoridae, Nabidae, Tingidae, Reduviidae and Miridae (Heteroptera: Cimicomorpha) from Parsabad-E-Moghan and its vicinity where situated in Ardabil province at North West of Iran. Totally 35 species belonging 19 genera were identified.

**KEY WORDS:** Heteroptera, Cimicomorpha, Parsabad-E-Moghan, Ardabil province, Iran.

The Heteroptera comprises approximately 37000 described species worldwide, with possibly another 25000 species remaining to be described. The world fauna is divided into approximately 75 families. Heteroptera can be serious crop pests, can be harmful to humans, or can be valuable as biological control agents (Carver et al., 1991; Schaefer & Panizzi, 2000; Samin et al., 2011; Triplehorn & Johnson, 2005). The sub order Cimicomorpha includes majority plant feeders and a few are predaceous true bugs.

The studied area of Parsabad Moghan and its vicinity is situated in Ardabil province in the north west of Iran. This area is an invaluable and wide region from agricultural position in Iran and several crops such as alfalfa, cotton, sugar beet, corn, wheat, barley, rice are under cultivated in there. Although some research has been conducted to determine the Heteropteran fauna of NW Iran (Modarres Awal, 1987, 1996, 1997; Farshbaf Pourabad, 2000; Gharaat et al., 2010; Khalilzadeh et al., 2005; Hassanzadeh et al., 2009a,b; Havaskary, 2012; Nateq Golestan, 2010; Sadeghi, 2004; Sadeghian et al., 2004; Samin et al., 2011), but the research was not focused on this area.

## **MATERIAL AND METHOD**

The collecting was conducted by sweeping net with 17 " inch diameter and some of them captured by hand directly from various grass lands and were put into jars filled with 70% ethanol. Their identification was based on morphological structures and male genitalia examinations based on flowing literatures include Anufriev et al. (1988); Borrer (1989); Carvalho (1960); Linnavuori (1998); Linnavuori & Hosseini (2000); Pericart (1972, 1998), Wagner (1970, 1973, 1975,

1978); the system, nomenclature, synonymy and distribution of determined species are available in Aukema & Rieger (1996, 1999).

## RESULTS

A total of 35 species in 19 genera and 5 families were determined among the fauna of this region of Iran. The list of species is given below.

### Family Anthocoridae Fieber, 1836

#### Subfamily Anthocorinae Fieber, 1836

##### *Anthocoris nemoralis* (Fabricius, 1794)

Material examined: Maskin – Shahr, (2 specimens), June 2011.

##### *Anthocoris nemorum* (Linnaeus, 1761)

Material examined: Germee, (5 specimens), July 2008.

##### *Anthocoris pilosus* (Jakovlev, 1877)

Material examined: Bilasevar, (1specimen), July 2011.

##### *Orius albidipennis* (Reuter, 1884)

Material examined: Bilasevar, (8 specimens), July 2011; Maskin – Shahr, June 2011.

##### *Orius horvathi* (Reuter, 1884)

Material examined: Namin, (4 specimens), July 2011.

##### *Orius minutus* (Linnaeus, 1758)

Material examined: Many Specimens, Parsabad – E- Moghan, June, 2007; Germee, July 2011; Namin, July 2011.

##### *Orius niger* (Wolff, 1811)

Material examined: Many Specimens, Aslandoz, August, 2009; Parsabad – E- Moghan, June 2007; Germee, June 2011; Namin, July 2011. Khodafarin; Agust 2010.

### Nabidae Reuter, 1890

#### Subfamily Nabinae A. Costa, 1853

##### *Himacerus (Aptus) mirmicoides* (O. Costa, 1834)

Material examined: Jafar Abad, (7 specimens), April 2009.

##### *Nabis (Nabis) palifer* Seidenstücker, 1954

Material examined: Many Specimens, Parsabad – E- Moghan, June 2007; Germi, July 2011; Namin, July 2011. : Jafar Abad, April 2009.

##### *Nabis (Nabis) pseudoferus orientarius* Remane, 1962

Material examined: Parsabad – E- Moghan, (6 specimens), June 2007; Meshkin – Shahr, (2 specimens), April 2009.

##### *Nabis (Nabis) pseudoferus transcaspicus* Remane, 1962

Material examined: Parsabad – E- Moghan, (4 specimens), June 2007.

##### *Nabis (Nabis) punctatus punctatus* A. Costa, 1847

Material examined: Meshkin – Shahr, (2 specimens), April 2009.

##### *Nabis (Tropiconabis) capsiformis* Germar, 1838

Material examined: Namin, (1 specimen), July 2010.

### Family Tingidae Laporte de Castelnau, 1833

#### Subfamily Tinginae Laporte, 1833

##### *Dictyla echii* (Schrank, 1782)

Material examined: Parsabad – E- Moghan, (4 specimens), June 2007.

##### *Stephanitis (Stephanitis) oschanini* Vasiliev, 1935

Material examined: Many Specimens, Parsabad – E- Moghan, June 2007, July 2010; Germi, July 2011; Namin, July 2011. : Jafar Abad, June 2009. Dasht –E- Moghan, June 2007; Khodafarin, April 2011.

### Family Reduviidae Latreille, 1807

#### Subfamily Harpactorinae Amyot and Serville, 1843

##### *Rhynocoris iracundus* (Poda, 1761)

Material examined: Parsabad – E- Moghan, (2 specimens), June 2007.

**Subfamily Reduviinae Latreille, 1807*****Reduvius jakovleffi* (Reuter, 1892)**

Material examined: Parsabad – E- Moghan, (3 specimens), June 2007.

***Reduvius pallipes* (Klug, 1830)**

Material examined: Aslandoz, (1 specimen), March 2011.

***Coriomeris affinis* (Herrich-Schäffer, 1839)**

Material examined: Bilasevar, (1 specimen) March 2008.

**Subfamily Peiratinae Stal, 1859*****Pirates hybridus* (Scopoli, 1763)**

Material examined: Khodafarin, (1 specimen), March 2010.

**Family Miridae Hahn, 1833****Subfamily Deraeocorinae Douglas and Scott, 1865*****Deraeocoris punctulatus* (Fallen, 1807)**

Material examined: Bilasevar, (4 specimens) March 2008.

***Deraeocoris serenus* (Douglas-Scott, 1868)**

Material examined: Parsabad – E- Moghan, (3 specimens), June 2007.

**Subfamily Bryocorinae Carvalho, 1957*****Macrolophus pygmaeus* (Rambur, 1839)**

Material examined: Bilasevar, (2 specimens) June 2010.

***Nesidiocoris tenuis* (Reuter, 1898)**

Material examined: Parsabad – E- Moghan, (4 specimens), June 2010.

**Subfamily Mirinae Amyot and Serville, 1843*****Stenodema (Brachystria) calcarata* (Fallen, 1807)**

Material examined: Dasht –E- Moghan, (6 specimens), June 2007.

***Stenodema (Stenodema) turanicum* (Reuter, 1904)**

Material examined: Dasht –E- Moghan, (3 specimens), March 2009.

***Adelphocoris lineolatus* (Goeze, 1778)**

Material examined: Many Specimens, Parsabad – E- Moghan, April & March 2011, June 2007, July 2010; Germi, July 2011; Namin, July 2011; Jafar Abad, June & August 2009. Dasht –E- Moghan, June 2007; Khodafarin, April 2011.

***Adelphocoris vandalicus* (Rossi, 1790)**

Material examined: Dasht –E- Moghan, (6 specimens), July 2009.

***Lygus gemellatus* Herrich-Schaeffer, 1835**

Material examined: Jafar Abad, (12 specimens), June 2009. Khodafarin, (8 specimens), March 2010.

***Lygus pratensis* Linnaeus, 1758**

Material examined: Parsabad – E- Moghan, (8 specimens), June 2010.

***Lygus rugulipennis* Poppius, 1911**

Material examined: Parsabad – E- Moghan, (4 specimens), March 2011, June 2007, July 2010; Germi, (5 specimens), July 2011; Namin, (6 specimens), July 2011; Jafar Abad, (3 specimens), June & August 2009. Dasht –E- Moghan, (1 specimen), June 2007; Khodafarin, (6 specimens), April 2011.

***Orthops (Orthops) kalmia* (Linnaeus, 1758)**

Material examined: Parsabad – E- Moghan, (2 specimens), June 2010.

***Polymerus cognatus* (Fieber, 1858)**

Material examined: Maskin – Shahr, (3 specimens), June 2011.

**Subfamily Orthotylinae Van Duzee, 1916*****Orthotylus (Melanotrichus) flavosparsus* (Sahlberg, 1841)**

Material examined: Bilasevar, (1 specimen) June 2010.

***Orthotylus (Melanotrichus) minutus* Jakovlev, 1877**

Material examined: Jafar Abad, (2 specimens), June 2009.

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Figure 1. Map of the sampling area that showed by green satellite marks, the border of country showed by yellow streak (Google earth map, 2012).