AN INVESTIGATION ON SOME HETEROPTERA IN MARAND REGION (IRAN)

Mohammad Hassanzadeh*, Reza Farshbaf Pourabad and Nouraddin Shayesteh***

* Department of Plant Protection, Faculty of Agriculture, University of Urmia, 57153 Urmia-IRAN, e-mail: moh_1353k@yahoo.com
** Department of Plant Protection, Faculty of Agriculture, University of Tabriz, Tabriz-IRAN.

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ABSTRACT:During 2005- 2006 an investigation was carried out on Heteroptera fauna of Marand region and environs in East Azarbaijan province (located in the northwest of Iran).The specimens were collected from trees, weeds, fields of cereals, hibernating habitats, soil and water by sweep net, aspirator and light trap. All species are first records from the studied region**.**

KEY WORDS: Heteroptera, Marand, fauna, predator

The Heteroptera are very important from an agricultural point of view. In this suborder there are aquatic, semi-aquatic and terrestrial species some of which are serious agricultural and silvicultural pests. On the other hand, predacious bugs reduce the number of agricultural pests and may be used in biological control.Because of these reasons; identification of Heteroptera is important (Linnavuori & Hosseini, 2000).

The Heteroptera insects feed on plant juices or live as predators. Many of such insects that feed on the plant are known as serious plant pests (Safavi, 1973).

The damage caused by the insect as a result of sucking sap from food plants, is often increased by the salivary enzymes, which may considerably alter the quality of plant products such as the baking quality of wheat. On the other hand, many predators, catch other insects and Acarina, and very beneficial from an agricultural point of view (Linnavuori & Hosseini, 2000).

MATERIAL AND METHODS

Marand is notable for its agricultural products but no faunestic investigation on invertebrates has been carried out. This is the first report of Heteroptera fauna of the region.

The study carried out during 2005-2006, and Heteroptera insects of Marand and environ collected from different plant hosts by different methods.

Marand (38^0, 17' - 38^0, 53' N, 45^0, 14' - 46^0, 12' E) is located on the northwest of East Azarbaijan province of Iran.

The climate is cold, semidried with the annual rainfall of 280-440mm. Wheat, barley, apple and stone fruits are the usual crops in the region.

The visible specimens that weren't very swift were trapped by hand but small species were collected by aspirator, some of the bugs were collected by sweep net from weeds and some of them by light trap. The specimens were put into jars filled with 70% alcohol.

RESULTS

In this study 29 species belonging to thirteen families of the Heteroptera have been studied.

Family Corixidae Leach, 1815

Corixa punctata (Illiger, 1807)

Material examined: Yekan dizaj: 4 specimens, June 2005. From water.

Family Notonectidae Latreille, 1802

Notonecta glauca Linnaeus, 1858

Material examined: Bangi: 2 specimens, July 2006. From water.

Family Tingidae Laport, 1877

Stephanitis pyri (Fabricius, 1775)

Material examined: Yekan dizaj: 1 specimen, May 2005. On garden apple.

Note: This species has been collected from different regions of Iran on apple, pear, cherry, peach, japanese quince, pyrus, white-thorn, plum, roses, malus, cerasus, alder, oak (Modarres Awal, 2002).

Family Miridae Hahn, 1831

Adelphocoris lineolatus Geoze, 1778

Material examined: Anamagh: 3 specimens, June 2005. On Lucerne.

Note: The species has generally distribution in Iran on sugar-beet, cotton, tamarisk, sainfoin (Modarres Awal, 2002).

Deraeocoris punctulatus (Fallen, 1801)

Material examined: Braham: 3 specimens, April 2005. On weeds.

Lygus rugulipennis Poppius, 1911

Material examined: Bangi: 2 specimens, June 2005, July 2006. On potato.

Family Anthocoridae Fieber, 1836

Anthocoris nemorum (Linnaeus, 1761)

Material examined: Marand: 2 specimens, July 2005. On garden apple.

Note: Predator of *Psylla pyricola*, *Anthonomus pomorum*, *Euzophera bigella*, *Hyponomeuta malinellus* and aphids (Modarres Awal, 2002).

Anthocoris nemoralis (Fabricius, 1794)

Material examined: Marand: 3 specimens, July 2006. On garden pear.

Note: Predator of aphids and *Psylla pyricola*.

Family Nabidae Costa, 1852

Nabis Pseudoferrus Remane, 1949

Material examined: Ordakloo :2 specimens, May 2005. On Lucerne.

Note: The species is predator and collected on sainfoin and Lucerne (Modarres Awal, 2002).

Coreidae Leach, 1815 Family

Coreus marginatus Linnaeus, 1758

Material examined: Bahram: 3 specimens, May 2005, 2 specimens, June 2006. On *Cirsium*.

Family Pyrrhocoridae Dohrn, 1859

Pyrrhocoris apterus Linnaeus, 1768

Material examined: Marand: 4 specimens, June 2005. On weeds.

Note: The species has been collected from East Azarbaijan, Khorasan, Tehran, Khozestan, Fars, Gilan and Gorgan provinces in Iran (Modarres Awal, 2002).

Family Alydidae Amyot and Servill, 1843

Camptopus lateralis (Germar, 1817)

Material examined: Marand: 6 specimens, April 2005. On lucene.

Family Rhopalidae Amyot and Servill, 1843

Corizus hyoscyami Linnaeus, 1758

Material examined: Ordakloo: 3 specimens, May 2005; **Marand:** 2 specimens, June 2006. On weeds.

Family Cydnidae Billberg, 1820

Cydnus aterrimus Foster, 1771

Material examined: Marand: 1 specimen, May 2005**.** On lucerne.

Family Scutelleridae Leach, 1815

Eurygaster integriceps Puton, 1886

Material examined:Marand: 8 specimens, June 2005. On wheat.

Note: This species has generally distribution in Iran (Modarrese Awal, 2002).

Eurygaster maura (Linnaeus, 1758)

Material examined: Marand: 5 specimens, May 2006. On wheat.

Odontotarsus robustus Jakovlev, 1883

Material examined: Bangi: 1 specimen, May 2006. On weeds.

Family Pentatomidae Leach, 1815

Aelia rostrata Bohemann, 1852

Material examined: Bahram: 1 specimen, June 2005. On wild graminae.

Note: Wheat, barley and wild graminae are the host of the species (Modarreas Awal, 2002).

Apodiphus amygdali Germar, 1817

Material examined: Marand: 5 specimens, July 2005. On apricot.

Note: This species has been collected from Tehran, Fars, Markazi. Kerman, Hormozgan, Semnan, Balouchestan, Esfahan provinces in Iran on poplar, almond, apricot, oriental plane, pistachio, tamarisk, oak, tung (Modarres Awal,2002).

Apodiphus integriceps Horvath, 1888

Material examined: Marand: 4 specimens, June 2006. On poplar.

Carpocoris fuscispinus (Bohemann, 1849)

Material examined: Marand: 2 specimens, July 2005. On lucern.

Note: The species has distribution in East Azarbaijan, Mazandaran, Zanjan, Tehran, Esfahan, Khorasan, Loretan in Iran on Lucerne, lupine, wheat, sugar-beet (Modarres Awal,2002).

Carpocoris lunata Fallen, 1852

Material examined: Bangi: 4 specimens, May 2006. On cereals.

Carpocoris purpureipennis (DeGeer, 1773)

Material examined: Marand: 5 specimens, August 2005. On weeds.

Dolycoris baccarum Linnaeus, 1758

Material examined: Anamagh: 3 specimens, June 2005. On lucerne.

Eurydema ornatum (Linnaeus, 1758)

Material examined: Marand: 2 specimens, April 2005. On cabbage.

Note: The species has been collected from different regions of Iran on turnip, cabbage, colza, mustard, wheat, radish and cultivated and wild crucifereae family plants (Modarres Awal, 2002).

Eurydema ventrale Kolenati, 1864

Material examined: Anamagh: 1 specimen, April 2006. On cabbage.

Graphosoma lineatum (Linnaeuse, 1758)

Material examined: Marand: 5 specimens, June 2005. On wild crucifereae.

Neottiglossa irana Wagner, 1963

Material examined: Bahram: 1 specimen, April 2005. On weeds.

Palomena prasina (Linnaeus, 1761)

Material examined: Marand: 3 specimens, June 2006. On weeds.

Among the species found in this study, *Eurygaster integriceps* and *Camptopus lateralis* had the highest frequency and convertibly family of *Stephanitis pyri* had the minimum.

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