

Orijinal araştırma (Original article)

Contribution to Heteroptera fauna of Khorasan Razavi province of Iran

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Summary

In this study, 81 species belonging to seventeen families of Heteroptera from Khorasan Razavi province of Iran were identified. Ten species of them were identified as the first record for Iran and 20 species were also identified for the first time from Khorasan Razavi province. The remaining 51 species have been reported from Khorasan province and their additional distribution areas were given in this paper. Among these species *Eurydema ventrale* (Kolenati, 1846), *Rhaphigaster brevispina* (Horváth, 1889), *Oxycarenus hyalinipennis* (Costa, 1847), *Gerris costae* (Herrich-Schaeffer, 1850) and *Holcostethus capitatus* (Wolff, 1801) were determined as prominent species, respectively.

Key words: Heteroptera, Iran, fauna, Khorasan Razavi, new records

Anahtar sözcükler: Heteroptera, İran, fauna, Horasan Razavi, yeni kayıtlar

Introduction

Studies of Lindberg (1938), Kiritschenko (1949), Hoberlandt (1954, 1995) and Farahbakhsh (1961) have great importance for the fauna of Iran. Studies on Heteroptera fauna of Khorasan province were conducted previously by Modarres Awal (1996, 1997), and Linnavuori & Modarres Awal (1998, 1999) and a total of 135 and 184 species were reported, respectively. Heteroptera samples collected from Khorasan Razavi province were evaluated in this study.

Material and Method

In recent years the Heteroptera species from different regions of Khorasan Razavi province were collected following usual methods and were

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identified along with the present specimens in the collection of Department of Plant Protection, Faculty of Agriculture, Ferdowsi University of Mashhad. In identification of species, especial attention was taken with respect to pygophor and parameres in male ones. The families based on Borrer et al. (1989) were studied under suborder groupings. The specimens identified for the first time from Iran were presented by the addition of an asterisk and from Khorasan Razavi province by the addition of two asterisk after the scientific name of the species. The studied species were identified and confirmed by author and R. E. Linnavuori in Finland.

Results and Discussion

In this study, 81 species belonging to seventeen families of Heteroptera are presented.

Cimicomorpha Leston, Pendergrast & Southwood, 1954

Nabidae Costa, 1853

***Nabis capsiformis* Germar, 1838**

Material studied: Mashhad (Torgabeh): 4 specimens, July 2005. On grasses.

***Nabis pseudoferus* Remane, 1949**

Material studied: Nishabour (Gadamgah): 3 specimens, June 1995. On grasses.

Reduviidae Latreille, 1807

***Coranus aegyptius* (Fabricius, 1775)**

Material studied: Fariman: 2 specimens, April 1994. On grasses.

Reduvius fedtschenkianus* (Oshanin, 1871)

Material studied: Chenaran (Gezel Hesar): 1 specimen, June 1989; Mashhad: 4 specimens, June 1990; Torbat Jam: 1 specimen, June 1989. On grasses, ground and also by light trap. Totally 6 specimens.

***Reduvius jakovleffi* Reuter, 1892**

Material studied: Mashhad: Torbat Heidariyeh: 2 specimens, July 2005. On grasses.

Reduvius pallipes* Klug, 1830*

Material studied: Mashhad: 3 specimens, December 2005. On grasses.

***Reduvius testaceus* (Herrich-Schaeffer, 1845)**

Material studied: Gonabad: 2 specimens, April 1992. On grasses.

Gerromorpha Popov, 1971

Gerridae Leach, 1815

***Gerris costae* (Herrich-Schaeffer, 1850)**

Material studied: Chenaran: 1 specimen, June 2003; Fariman: 3 specimens, March 1995; Mashhad (Akhlamad): 5 specimens, January 2004; Nishabour: 1 specimen, June 1991; Qouchan: 2 specimens, August 2000; Shirvan: 2 specimens, September, 2000; Torbat Heidariyeh: 1 specimen, August 1989. In water and rarely on grasses. Totally 15 specimens.

***Gerris thoracicus* Schummel, 1832**

Material studied: Mashhad: 1 specimen, July 1988; 4 specimens, June 2005. By light trap in orchards. Totally 5 specimens.

Veliidae Brullé, 1836

Velia mancinii* Tamanini, 1947

Material studied: Mashhad: 2 specimens, June 1985. In water.

Nepomorpha Popov, 1968

Corixidae Leach, 1815

***Corixa affinis* Leach, 1817**

Material studied: Shirvan: 3 specimens, June 1992. In water.

Corixa punctata* (Illiger, 1807)

Material studied: Nishabour: 4 specimens, July 1991. In water.

Hesperocorixa occulta* (Lundblad, 1929)

Material studied: Qouchan: 3 specimens, May 1991. In water.

***Sigara nigrolineata* (Fieber, 1848)**

Material studied: Mashhad: 2 specimens, June 1987. In water.

Nepidae Latreille, 1802

Nepa cinera* Linnaeus, 1758

Material studied: Mashhad: 3 specimens, August 1987. In water.

Notonectidae Latreille, 1902

Notonecta glauca* Linnaeus, 1758*

Material studied: Mashhad (Tous): 4 specimens, August 2005. By light trap and on grasses.

Notonecta maculata* Fabricius, 1794*

Material studied: Fariman: 1 specimen, May 1990; Mashhad (Now Darreh): 2 specimens, November, 1988; Qouchan: 2 specimens, June 1990. In water. Totally 5 specimens.

Notonecta viridis* Delcourt, 1909

Material studied: Bajgiran: 1 specimen, July 1990; Mashhad: 3 specimens, June 1993; Qouchan: 1 specimen, June 1990. In water. Totally 5 specimens.

Pentatomomorpha Leston, Pendergrast & Southwood, 1954

Alydidae Amyot & Serville, 1843

***Camptopus tragacanthae* (Konenati, 1845)**

Material studied: Torbat Heidariyeh: 2 specimens, June 2006. On grasses.

Berytidae Fieber, 1851

***Berytinus distinguendus* (Ferrari, 1841)**

Material studied: Mashhad: 3 specimens, July 2004. By light trap in orchards.

***Neides brevipennis* Puton, 1895**

Material studied: Mashhad (Akhlamad): 2 specimens, June 1992. In water.

Coreidae Leach, 1815

***Centrocoris spiniger* (Fabricius, 1781)**

Material studied: Gonabad: 2 specimens, May 1984. On grasses.

***Centrocoris volxemi* (Puton, 1878)**

Material studied: Qouchan: 3 specimens, April 2006. On grasses.

***Ceraleptus obtusus* (Brullé, 1839)**

Material studied: Qouchan: 2 specimens, June 2004. On grasses.

***Coreus marginatus marginatus* (Linnaeus, 1758)**

Material studied: Gonabad: 3 specimens, June 2004. On grasses.

***Spathocera dalmanii* (Schilling, 1829)**

Material studied: Mashhad: 2 specimens, July 1987. On grasses.

Cydnidae Billberg, 1820

***Cydnus aterrimus* (Forster, 1771)**

Material studied: Nishabour: 2 specimens, June 1995; Sabzevar: 1 specimen, November 1999. On grasses and ground. Totally 3 specimens.

Exosehirus validus* (Jakovlev, 1877)*

Material studied: Shirvan: 2 specimens, April 1992. On grasses.

Fromundiellus latiusculus* Horváth, 1882

Material studied: Mashhad: 3 specimens, November 2000; 3 specimens, August 2005. On bean and grasses. Totally 6 specimens.

***Macroscytus brunneus* (Fabricius, 1803)**

Material studied: Sarakhs: 2 specimens, April 2004. On grasses.

Lygaeidae Schilling, 1829

***Aphanus rolandri* (Linnaeus, 1758)**

Material studied: Fariman: 5 specimens, April 2006; Torbat Jam: 1 specimen, April 2005. On wheat and grasses. Totally 6 specimens.

***Beosus quadripunctatus* (Müller, 1766)**

Material studied: Kashmar: 1 specimen, April 1999; Mashhad: 1 specimen, July 2000; 2 specimens, May 2005; Mashhad (Torogh): 3 specimens, November 2000. On almond, hedge mustard and grasses. Totally 7 specimens.

***Bleteogonus beckeri* (Fry-Gessner, 1863)**

Material studied: Daragaz: 2 specimens, September 2000; Kashmar (Tavalla): 1 specimen, January 1999; Mashhad: 1 specimen, July 1996; 1 specimen, April 2001; Mashhad (Torgabeh): 1 specimen, April 2006. On grasses and ground. Totally 6 specimens.

Emblethis angustus* Montandon, 1890

Material studied: Nishabour: 1 specimen, July 1992; Torbat Jam: 2 specimens, November 1992. On grasses. Totally 3 specimens.

Emblethis ciliatus* Horváth, 1875

Material studied: Mashhad: 1 specimen, May 2006; Mashhad (Akhlamad): 2 specimens, August 2004. On grasses and ground. Totally 3 specimens.

***Emblethis denticollis* Horváth, 1878**

Material studied: Kashmar (Tavalla): 1 specimen, April 1999; Mashhad: 1 specimen, April 1999; 2 specimens, May 2005; 1 specimen, September 2006; Mashhad (Torogh): 2 specimens, March 2006; Mashhad (Tous): 1 specimen, May 2003. On lucerne, wheat, wild barley, grasses and ground. Totally 8 specimens.

***Emblethis karamanus* Seidenstücker, 1963**

Material studied: Bajgiran: 1 specimen, July 1991; Mashhad: 1 specimen, October 1990; Shirvan: 1 specimen, April 1992. On grasses. Totally 3 specimens.

Eremocoris fenestratus* (Herrich-Schaeffer, 1839)

Material studied: Mashhad (Tous): 3 specimens, June 2006. On grasses.

Graptopeltus validus* (Horváth, 1875)*

Material studied: Mashhad: 4 specimens, July 1987. On grasses.

Horvathiolus superbus* Pollich, 1779*

Material studied: Mashhad (Shandiz): 3 specimens, November 2001. On cauliflower.

Lethaeus picipes* (Herrich-Schaeffer, 1850)*

Material studied: Mashhad: 3 specimens, July 1988. On ground.

Lygaeosoma sardeum sardeum* Spinola, 1837*

Material studied: Mashhad (Golmakan): 2 specimens, April 1994. On wheat.

***Oxycarenus hyalinipennis* (Costa, 1843)**

Material studied: Mashhad: Many specimens, September 2000; Mashhad (Torogh): 3 specimens, May 2006. On rose of sharon and grasses.

***Spilostethus saxatilis* (Scopoli, 1763)**

Material studied: Fariman: 3 specimens, June 2005. On grasses.

Pentatomidae Leach, 1815

***Acrosternum arabicum* Wagner, 1959**

Material studied: Qouchan (Chery): 3 specimens, June 2004. On grasses.

***Acrosternum breviceps* (Jakovlev, 1890)**

Material studied: Gonabad: 1 specimen, May 1989; Nishabour: 1 specimen, July 1996; Torbat Heidariyeh (Feyz Abad): 2 specimens, August 1996. On pistachio and grasses. Totally 4 specimens.

***Acrosternum heegeri* Fieber, 1861**

Material studied: Fariman: 2 specimens, June 2005; Mashhad: 1 specimen, September 1999; 3 specimens, May 2003; 1 specimen, August 2004; 1 specimen, June 2005; Mashhad (Golmakan): 2 specimens, October 2000; 1 specimen, September, 2004. On grasses. Totally 11 specimens.

***Aelia rostrata* Boheman, 1852**

Material studied: Torbat Heidariyeh: 2 specimens, May 1995. On wild poaceous plants.

***Alloeoglypta pretiosa* Kiritschenko, 1952**

Material studied: Daragaz: 1 specimen, June 1995; Gonabad: 1 specimen, October 1990; Kashmar (Tavalla): 2 specimens, August 1999; Torbat Heidariyeh: 1 specimen, October 1989. On grasses. Totally 5 specimens.

***Andrallus spinidens* (Fabricius, 1787)**

Material studied: Kalat: 2 specimens, November 2001. On grasses.

***Antheminia lunulata* (Goeze, 1778)**

Material studied: Mashhad: 2 specimens, July 2006; Qouchan: 2 specimens, August 1993; Shirvan (Borzol Abad): 3 specimens, July 2005. On grasses. Totally 7 specimens.

***Apodiphus amygdali* (Germar, 1817)**

Material studied: Gonabad: 3 specimens, June 1990. On ground.

***Carpocoris mediterraneus* (Tamanini, 1958)**

Material studied: Mashhad: 1 specimen, July 1987; Sabzevar (Soltan Abad): 2 specimens, July 1991. On grasses and ground. Totally 3 specimens.

***Cnephosa flavomarginata* Jakovlev, 1880**

Material studied: Mashhad: 1 specimen, October 2003; Mashhad (Seyed Abad): 3 specimens, April 2005. On grasses. Totally 4 specimens.

Eurydema ventrale* (Kolenati, 1846)*

Material studied: Chenaran: 6 specimens, May 2006; Fariman: 5 specimens, May 2006; Mashhad: 5 specimens, April 2006; Nishabour: 4 specimens, December 2006; Sarakhs: 2 specimens, March 2006; Torbat Heidariyeh: 6 specimens, April 2006. On wheat, hedge mustart, lucerne, grasses and ground. Totally 28 specimens.

Holcostethus capitatus* (Jakovlev, 1889)*

Material studied: Mashhad: 14 specimens, May 2005; Shirvan: 2 specimens, June 2006. On grasses. Totally 16 specimens.

***Mustha spinosula* (Lefebvre, 1831)**

Material studied: Mashhad (Torogh): 3 specimens, June 2004. On grasses.

***Nezara viridula* (Linnaeus, 1758)**

Material studied: Mashhad: 2 specimens, February 2005; 5 specimens, April 2005. On grasses. Totally 7 specimens.

Palomena prasina* (Linnaeus, 1761)*

Material studied: Fariman: 2 specimens, June 2005; Mashhad: 2 specimens, May 1990; Mashhad (Shoghl Abad): 2 specimens, May 2002. On grasses. Totally 6 specimens.

Rhaphigaster brevispina* Horváth, 1889*

Material studied: Fariman: 1 specimen, January 1990; Mashhad: 8 specimens, April 2005; Mashhad (Torogh): 3 specimens, July 1987; Nishabour (Baghroud): 1 specimen, June 1994; Qouchan: 2 specimens, May 1989; Shirvan: 2 specimens, May 1991. On apple, ash and grasses. Totally 17 specimens.

Rhaphigaster nebulosa* (Poda, 1761)*

Material studied: Mashhad (Anbaran): 3 specimens, August 2004; Nishabour (Golshan): 2 specimens, May 2005. On grasses. Totally 5 specimens.

***Sciocoris deltocephalus* Fieber, 1861**

Material studied: Mashhad (Shandiz): 3 specimens, August 2005. On grasses.

Sciocoris microphthalmus* Flor, 1860*

Material studied: Mashhad: 2 specimens, September 1987. On grasses.

Zicrona coerulea* (Linnaeus, 1758)*

Material studied: Mashhad: 3 specimens, July 1995. On grasses.

Pyrrhocoridae Fieber, 1860

***Pyrrhocoris apterus* (Linnaeus, 1758)**

Material studied: Chenaran: 2 specimens, May 2006; Qouchan: 1 specimen, July 2004; Sarakhs: 2 specimens, April 1996. On barley and grasses. Totally 5 specimens.

Scantius aegyptius* (Linnaeus, 1758)*

Material studied: Fariman: 1 specimen, May 2005; Torbat Jam: 2 specimens, April 2001. On wheat and grasses. Totally 3 specimens.

Rhopalidae Amyot & Serville, 1843

***Brachycarenum tigrinus* (Schilling, 1829)**

Material studied: Chenaran: 2 specimens, June 2002; Mashhad (Delbaran): 2 specimens, May 2006. On grasses. Totally 4 specimens.

***Chorosoma schillingi* (Schilling, 1829)**

Material studied: Shirvan: 2 specimens, June 2005. On grasses.

***Corizus fenestella* Horváth, 1917**

Material studied: Sabzevar: 2 specimens, August 2006. On grasses.

***Liorhyssus hyalinus* (Fabricius, 1794)**

Material studied: Torbat Heidariyeh: 2 specimens, April 1988; Torbat jam: 1 specimen, May 2006. On grasses. Totally 3 specimens.

***Maccevethus errans caucasicus* Kolenati, 1845**

Material studied: Shirvan: 3 specimens, June 2005. On grasses.

Scutelleridae Leach, 1815

Eurygaster integriceps* Puton, 1881*

Material studied: Nishabour: 5 specimens, April 1996. On wheat.

Eurygaster maura* (Linnaeus, 1758)*

Material studied: Mashhad (Torgabeh): 3 specimens, December 2003; Mashhad (Zoshk): 1 specimen, December 2002. On wild poaceous plants. Totally 4 specimens.

***Graphosoma lineatum* (Linnaeus, 1758)**

Material studied: Mashhad: 2 specimens, July 1993; 4 specimens, August 2004; Mashhad (Shandiz): 3 specimens, July 2001. On carrot, cumin and grasses. Totally 9 specimens.

***Graphosoma semipunctatum* (Fabricius, 1775)**

Material studied: Daragaz: 1 specimen, May 2006. On ground.

***Odontotarsus angustatus* Jakovlev, 1884**

Material studied: Shirvan (Amir Abad): 3 specimens, June 2006. On grasses.

***Odontotarsus purpureolineatus* (Rossi, 1790)**

Material studied: Mashhad: 2 specimens, June 1992. On grasses.

***Odontotarsus robustus* Jakovlev, 1884**

Material studied: Shirvan: 2 specimens, June 2005. On grasses.

Psacasta exanthematica* (Scopoli, 1763)*

Material studied: Fariman: 3 specimens, June 2005; Mashhad (Torogh): 1 specimen, May 2003. On grasses. Totally 4 specimens.

Stenocephalidae Dallas, 1852

***Dicranocephalus agilis* (Scopoli, 1763)**

Material studied: Gonabad: 2 specimens, October 1987. On grasses.

Dicranocephalus marginatus* (Ferrari, 1874)*

Material studied: Daragaz: 1 specimen, March 1996; Kashmar: 1 specimen, July 1993; Torbat Heidariyeh: 2 specimens, May 1998. On grasses. Totally 4 specimens.

In this study, total of 81 species belonging to seventeen families of Heteroptera from Khorasan Razavi province of Iran were identified. Ten species of them were identified as the first record for Iran and 20 species were also identified for the first time from Khorasan Razavi province. The remaining 51 species have been reported earlier from Khorasan province, and their additional distribution areas were given. Among these species *Eurydema ventrale* (Kolenati, 1846), *Rhaphigaster brevispina* (Horváth, 1889), *Oxycarenus hyalinipennis* (Costa, 1847), *Gerris costae* (Herrich-Schaeffer, 1850) and *Holcostethus capitatus* (Wolff, 1801) were determined as prominent species, respectively.

Özet

Horasan Razavi Bölgesi (İran)'nin Heteroptera faunasına katkılar

Bu çalışmada İran'ın Horasan Razavi Bölgesi'nden Heteroptera takımına bağlı 17 familyaya ait 81 türle ilgili faunistik bilgiler verilmiştir. Bunlardan 10 tür İran ve 20 tür Horasan Razavi Bölgesi faunası için ilk kayıt niteliğindedir. Bunların dışındaki 51 tür, Horasan bölgesinden daha önce bildirilmiş olup, bu makalede diğer dağılımları da verilmiştir. Bu türlerden *Eurydema ventrale* (Kolenati, 1846), *Rhaphigaster brevispina* (Horváth, 1889), *Oxycarenus hyalinipennis* (Costa, 1847), *Gerris costae* (Herrich-Schaeffer, 1850) ve *Holcostethus capitatus* (Wolff, 1801)'un bol örneği olan türler olduğu anlaşılmıştır.

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