

## Studies on the Acanthosomatidae, Scutelleridae and Pentatomidae (Heteroptera) of Gilan and the adjacent provinces in northern Iran

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**Abstract.** A list of the Acanthosomatidae (3 species), Scutelleridae (13 species) and Pentatomidae (76 species) from the Iranian province of Gilan and adjacent provinces is published. The following eight species are recorded from Iran for the first time: *Cyphostethus tristriatus* (Fabricius, 1787), *Arma custos* (Fabricius, 1794), *Alloeoglypta pretiosa* Kiritschenko, 1952, *Sciocoris cursitans cursitans* (Fabricius, 1794), *Sciocoris macrocephalus* Fieber, 1851, *Ventocoris (Selenodera) bulbifer* Seidenstücker, 1964, *Podops (Opocrates) annulicornis* Jakovlev, 1877, and *Tarisa virescens* Herrich-Schaeffer, 1851.

**Key words.** Heteroptera, Pentatomoidea, Acanthosomatidae, Scutelleridae, Pentatomidae, Iran, Gilan, faunistics, checklist, new records

### Introduction

This paper is the last one in a series of papers dealing with the true bug fauna of the Gilan province in northern Iran (LINNAVUORI & HOSSEINI 2000; LINNAVUORI 2006, 2007a,b,c). It is based on investigations I have been carrying out together with my wife Sakineh Linnavuori in the province and adjacent areas since 1994.

The Gilan province (Fig. 1) (36°36'-38°27' N, 48°30'-50°30' E, total area 14,709 km<sup>2</sup>) is located on the southern coast of the Caspian Sea and surrounded by Ardabil, Zanjan, Ghazvin, Tehran, Mazandaran, and Golestan provinces. The Gilan province consists of coastal and central plains (-25 m a.s.l. at Astara up to about 1,000 m a.s.l.), which are bordered by the Talesh, Masuleh and Poshtehkuh mountain ranges in the west and the Elburz Mts. in the south (maximum altitude about 3,000 m a.s.l.). The mountain ranges are traversed by the Safid Rud valley in Central Gilan (LINNAVUORI & HOSSEINI 2000).

Owing to the influence of the Caspian Sea and the topography, the climate in Gilan is unique in the Middle East. The annual rainfall is about 1,300 mm in Rasht in the central plain and even surpasses 2,000 mm or more on the sea-facing mountain slopes. The rainfall decreases rapidly on the inland-facing slopes (e.g., the annual rainfall at Rudbar was only 351 mm in



Fig. 1. Provinces of Iran. 1 – West Azerbaijan; 2 – East Azerbaijan; 3 – Ardabil; 4 – Gilan; 5 – Zanjan; 6 – Kurdistan; 7 – Kermanshah; 8 – Hamedan; 9 – Ghazvin; 10 – Mazandaran; 11 – Tehran; 12 – Qom; 13 – Markazi; 14 – Lorestan; 15 – Ilam; 16 – Khuzestan; 17 – Chaharmahal & Bakhtiari; 18 – Kohgiluyeh & Boyerahmad; 19 – Esfahan; 20 – Semnan; 21 – Golestan; 22 – Khorasan; 23 – Yazd; 24 – Fars; 25 – Bushehr; 26 – Hormozgan; 27 – Kerman; 28 – Sistan & Baluchestan (after ALIPANAH & USTJUZHANIN 2005).

1981), and the climate is semiarid, resembling that of the neighbouring areas of the Zanjan province (LINNAVUORI & HOSSEINI 2000).

Vegetation of Gilan consists of the following five zones:

**1. The coastal plain.** Sandy shores with halophytes such as *Salsola kali* is bordered with *Alnus glutinosa* zone with dense undergrowth of *Rubus caesius*, *Crataegus* sp. and *Punica granatum*. Other parts of the plain consist of stabilized dunes with planted *Pinus* and *Cupressus* forests and growths of *Centaurea iberica* and *Eryngium coeruleum*, and of coastal meadows and marshes with dense vegetation of *Typha*, *Sparganium*, *Juncus*, *Scirpus*, *Cyperus*, *Carex*, and *Phragmites*, and abundant submerged vegetation such as *Potamogeton* spp.

**2. The central plain.** The central plain is intensely cultivated and covered by rice, tobacco and tea plantations. The fields are interrupted by gardens and little woods of *Alnus glutinosa*, *Salix* and *Populus* with dense undergrowth of *Rubus caesius*, *Urtica* and *Eupatorium cannabinum*.

**3. The forest zone.** The sea-facing slopes of the mountains are covered by immense wet subtropical Hyrcanian forests up to the tree line, which varies from 600 m a.s.l. (Deylaman) to 1000 m a.s.l. (Talesh Mts.). Characteristic trees are *Alnus subcordata*, *Carpinus betulus*,

*C. orientalis*, *Fagus orientalis*, *Quercus castanifolia*, *Ulmus scabra*, *Zelkova carpinifolia*, *Tilia platyphyllos*, *Acer ibericum*, and *A. cappadocicum*.

**4. Mountain meadows.** Mountain meadows with rich vegetation extend above the tree line, with grasses and herbs such as *Dianthus orientalis*, *D. crinitus*, *Astragalus odoratus*, *A. subsimilis*, *Lotus corniculatus*, *Trifolium pratense*, *T. campestre*, *Vicia villosa*, *Epilobium hirsutum*, *Euphorbia* spp., *Ferula* sp., *Verbascum speciosum*, *Galium odoratum*, *Artemisia herbaalba*, *A. absinthium*, and *Matricaria aurea*. The region is traversed by river valleys with gardens and thickets of *Salix alba*, *Populus nigra* (widespread), *Elaeagnus angustifolia*, *Hippophaes rhamnoides*, *Myricaria germanica* (the Khalkhal area), and *Tamarix* spp. (Ganjeh – Lowshan).

**5. Dry hilly steppes.** This area extends from Rudbar and Manjil to Gilvan, Sang Rud and Jirandeh. Vegetation, like in the adjacent parts of the Zanjan province, consists of shrubs (*Juniperus polycarpus*, *Pteropyrum aucheri*, *Rosa canina*, *Rhus coriaria*, *Pistacia* sp., and *Rhamnus pallasii*), and grasses and herbs (such as *Astragalus marschallianus*, *Galium gilanicum*, *G. rotundifolium*, *Teucrium polium*, *Verbascum thapsus*, and *Artemisia herbaalba*) (LINNAVUORI & HOSSEINI 2000).

## Material and methods

The collected material is preserved in the Linnavuori collection (Raisio, Finland), the National Museums and Galleries of Wales (Cardiff, United Kingdom), and the College of Agriculture in the Gilan University (Rasht, Iran). When the exact number of specimens is not given, the following approximations are used: several = 5-10, many = 11-20, and numerous = > 20 specimens. The system and nomenclature follows GÖLLNER-SCHIEDING (2006a,b) and RIDER (2006).

## Result

### LIST OF SPECIES

#### Superfamily Pentatomoidea

#### Family Acanthosomatidae

##### *Acanthosoma haemorrhoidale haemorrhoidale* (Linnaeus, 1758)

**Material examined.** GILAN: 10 km W of Asalem, 1 specimen, 5.-7.vii.2002; Masuleh, 14 specimens, 4.-5.viii.2002; Nasir Mahaleh, 1 specimen, 14.-15.viii.2002. ARDABIL: 25 km E of Kivi, 1 specimen, 7.-9.vii.2002.

**Comments.** In mountain forests. On deciduous trees, recorded e.g. on *Carpinus betulus*, *Fagus silvatica*, *Quercus*, and *Pyrus*. Euro-Siberian.

##### *Elasmucha grisea eckerleini* Josifov, 1971

**Material examined.** GILAN: 10 km W of Asalem, 1 specimen, 5.-7.vii.2002; Ziba Kenar, 2 specimens, 30.iv.1995.

**Comments.** In hilly forests and gardens. On deciduous trees. Iranian, known from Iran and Azerbaijan.

***Cyphostethus tristriatus* (Fabricius, 1787)**

**Material examined.** GILAN: Jafrud, 2 specimens, 31.vii.-1.viii.2002; near Rustam Abad, 1 specimen, 13.viii.1995; Tutkabon – Rudbar, 6 specimens, 29.v.-28.vi.1995, 2.ii.2000. MAZANDARAN: Hassan Abad near Chalus, 1 specimen, 6.-7.vii.1995.

**Comments.** In hilly forests on *Cupressus*. West Palaearctic, extending to the Middle East and Central Asia. **New for Iran.**

**Family Scutelleridae**  
Subfamily Odontotarsinae  
Tribe Odontotarsini

***Odontotarsus angustatus* Jakovlev, 1883**

**Material examined.** KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994.

**Comments.** In a hilly forest. Irano-Turanian.

***Odontotarsus impictus* Jakovlev, 1886**

**Material examined.** ARDABIL: 10 km W of Khalkhal, 1 specimen, 8.-9.vii.2002. TEHRAN: Azad Bar, 2410 m a.s.l., 1 specimen, 8.-10.vii.1995. KHORASAN: Khalkanlod 30 km E of Quchan, 3 specimens, 7.vi.1994; Zard 100 km WNW of Bojnurd, 1 specimen, 13.vii.1994.

**Comments.** In mountain steppes. Irano-Turanian.

***Odontotarsus latissimus* Göllner-Scheiding, 1990**

**Material examined.** TEHRAN: Azad Bar, 2410 m a.s.l., 2 specimens, 8.-10.vii.1995; 5 km S of Firuzkuh, 1 specimen, 2.vii.2004; Gachsar, 1 specimen, 13.vii.2002; Kordan, 1 specimen, 14.vii.2002; Shahrestanak, 60 km NE of Karadj, 2100 m a.s.l., 1 specimen, 10.-12.vii.1995.

**Comments.** In mountain steppes. Anatolian, known from Greece, Turkey, Syria, Iraq, and Iran.

***Odontotarsus obsoletus obsoletus* Horváth, 1906**

**Material examined.** GILAN: Manjil, 1 specimen, 16.v.-14.vi.1995. KHORASAN: Mashhad, 1 specimen, 10.v.1994.

**Comments.** In hilly steppes. Middle-Asiatic. The pale-colored nominate subspecies, which has not been recorded from Iran before, is known from Turkey, Armenia, Kazakhstan, Kirgizia, Turkmenistan, and Uzbekistan. The dark-colored subspecies, *O. obsoletus furvus* Kiritshenko, 1926, has been recorded from Kazakhstan, Iran, Kirgizia, and Uzbekistan.

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

**Material examined.** GILAN: Manjil, 2 specimens, 19.v.-14.vi.1995, 8.-10.v.2001; Sang Rud – Jirandeh, 2 specimens, 31.v.1995; Tutkabon – Rudbar, 1 specimen, 29.v.-28.vi.1995. ARDABIL: Khalkhal – Kivi, 1 specimen, 4.viii.1996; near Kivi, 1 specimen, 8.vii.2002. TEHRAN: Azad Bar, 5 specimens, 8.-10.vii.1995; Kordan, 1 specimen, 14.vii.2002; Shahrestanak, 1 specimen, 10.-12.vii.1995. GOLESTAN: near Maraveh, 2 specimens, 21.vii.2005. KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994; Zard 100 km WNW of Bojnurd, 1 specimen, 13.vii.1994.

**Comments.** In mountain steppes, recorded on *Centaurea* and *Sanguisorba*. Holomediteranean, extending to Central Europe, the Middle East, and Central Asia.

*Odontotarsus robustus* Jakovlev, 1884

**Material examined.** GILAN: Ganjeh, 1 specimen, 14.v.-13.vi.1995; Rustam Abad – Salan Sar, 4 specimens, 24.x.1996; Sang Rud – Jirandeh, 1 specimen, 31.v.1995; Tutkaban – Rudbar, 2 specimens, 26.v.-8.vii.1998. ZANJAN: near Mamalan, 1 specimen, 12.-14.v.2001. KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994; Mashhad, 1 specimen, 5.vii.1994.

**Comments.** In hilly steppes. On *Centaurea*. Holomediterranean.

## Subfamily Odontoscelinae

*Odontoscelis (Odontoscelis) fuliginosa* (Linnaeus, 1761) sensu lato

**Material examined.** GILAN: Deylaman, 1 specimen, 16.-20.vii.1996; Manjil, 1 specimen, 16.v.-14.vi.1995. ARDABIL: Khalkhal – Kivi, 1 specimen, 4.viii.1996.

**Comments.** In mountain steppes. Holopalaeartic. DANILOVITSH (1975) recognized a variability in the structure of the aedeagus in different populations. GÖLLNER-SCHIEDING (1986) mentioned that in most populations both aedeagal processes (Fig. 2A-C) are long and gracile. DANILOVITSH (1975) pointed out that the second aedeagal process is considerably shorter and broader in populations from northern Iran and Turkmenistan. In a male from Deylaman the aedeagus is similar to Fig. 2D. A large material is needed to decide whether these populations represent

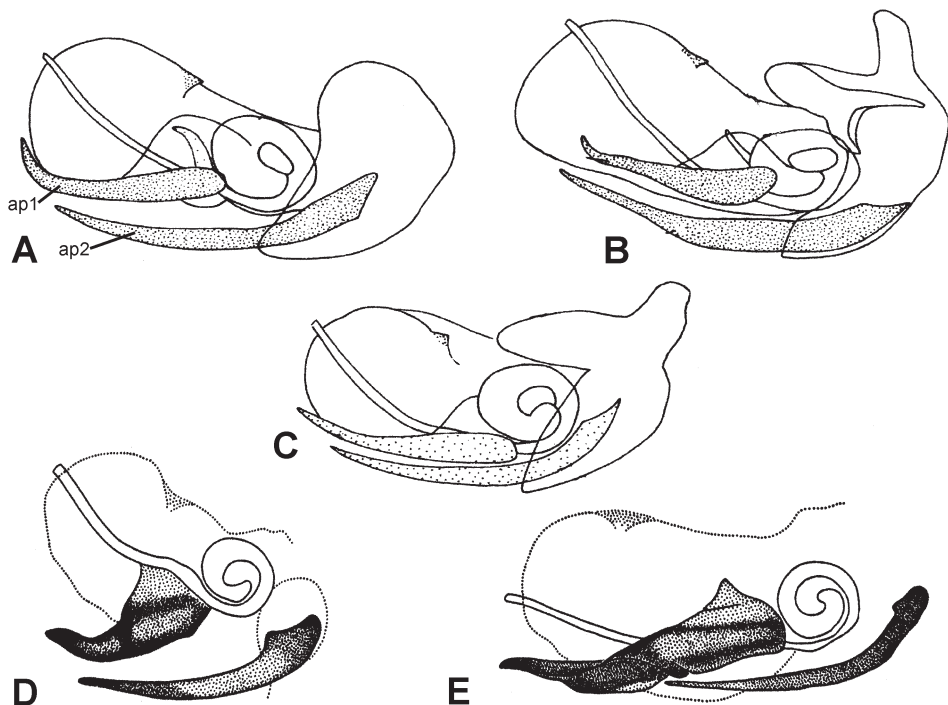


Fig. 2. Lateral view of aedeagus (ap1, ap2 = aedeagal processes). A-D – *Odontoscelis fuliginosa* (Linnaeus, 1761): A – Germany, Thüringen; B – Bulgaria; C – Kazakhstan; D – Iran, Gorgana. E – *O. montandoni* Kis, 1979, Egypt (A-C after GÖLLNER-SCHIEDING (1986); D-E after DANILOVITSH (1975)).

separate species. KIS (1979) already proved that populations from North Africa with a peculiar shape of the second process (Fig. 2E), which were regarded as a form of *O. fuliginosa* by DANILOVITSH (1975), belong to a separate species *O. montandoni* Kis, 1979.

***Irochrotus turanicus* Kerzhner, 1976**

**Material examined.** GILAN: Manjil, 2 specimens, 26.vi.1996.

**Comments.** In a mountain meadow. Middle-Asiatic.

Subfamily Eurygastrinae  
Tribe Eurygastrini

***Eurygaster integriceps* Puton, 1881**

**Material examined.** GILAN: Manjil, 2 specimens, 12.v.-14.vi.1995, 26.vi.1996; Sang Rud – Jirandeh, 1 specimen, 31.v.1995. ARDABIL: Khalkhal, 1 specimen, 30.vii.1996. TEHRAN: Azad Bar, 2 specimens, 8.-10.vii.1995; Kordan, 1 specimen, 14.vii.2002. KHORASAN: 70 km W of Darreh Gaz, 1 specimen, 14.vi.1994; Deh Shor, 2 specimens, 15.v.1994; near Zaman Soofi 65 km W of Bojnurd, 2 specimens, 12.-13.vii.1994.

**Comments.** In hilly steppes and fields. On Poaceae. Pontomediterranean, extending to the Middle East, Central Asia, and Pakistan.

***Eurygaster maura* (Linnaeus, 1758)**

**Material examined.** KHORASAN: Golestan Park 150 km W of Bojnurd, 4 specimens, 14.vii.1994.

**Comments.** In a hilly meadow on Poaceae. Euro-Siberian.

***Eurygaster testudinaria testudinaria* (Geoffroy, 1785)**

**Material examined.** GILAN: near Rustam Abad, 1 specimen, 15.v.1995. KHORASAN: Golestan Park 150 km W of Bojnurd, 4 specimens, 14.vii.1995.

**Comments.** In meadows, recorded e.g. on Cyperaceae. Euro-Siberian.

Tribe Psacastini

***Promecocoris (Emphylocoris) stschurovskii* (Oshanin, 1871)**

**Material examined.** GILAN: Sang Rud, 1 specimen, 29.-30.vii.2003.

**Comments.** In *Juniperus* zone of a mountain steppe. Vegetation consisting e.g. of *Artemisia* and *Eryngium*. Known from Caucasus, Iran and Central Asia. The generic status was recently revised by GAPON (2007a).

***Psacasta (Psacasta) exanthematica exanthematica* (Scopoli, 1763)**

**Material examined.** ZANJAN: Mamalan – Abbar, 1 specimen, 20.-21.vii.2002. TEHRAN: 15 km NE of Firuzkuh, 1 specimen, 19.v.2003. MAZANDARAN: Hassan Abad, 1 specimen, 15.-16.vii.2002.

**Comments.** In gardens. Holomediterranean, extending to the steppe zone of Central Europe, the Middle East, and Central Asia.

**Family Pentatomidae**

## Subfamily Asopinae

***Pinthaeus sanguinipes* (Fabricius, 1781)**

**Material examined.** GILAN: Lahijan, 2 specimens, 20.-21.v.1995.

**Comments.** On deciduous trees in gardens. Euro-Siberian, extending to the Middle East, China, and Japan.

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

**Material examined.** GILAN: Fuman, 1 specimen, ix.2003, H. Ghahari leg.; Lowshan, 1 specimen, 27.ix.1998; Nasir Mahaleh, 1 specimen, 14.-15.viii.2002; Rustam Abad – Salan Sar, 1 specimen, 28.vii.1996.

**Comments.** In mountain forests with *Fagus*, *Fraxinus* etc. Intertropical, extending to Italy, Greece, Sinai, the Middle East, Turkmenistan, China, and Japan.

***Arma custos* (Fabricius, 1794)**

**Material examined.** GILAN: Rasht, 1 specimen, viii.-ix.1998; Ziba Kenar, 2 specimens, 30.iv.1995.

**Comments.** In deciduous forests and gardens. Euro-Siberian, extending to Turkey, Caucasus, Central Asia, China, and Japan. **New for Iran.**

## Subfamily Pentatominae

## Tribe Aeliini

***Aelia acuminata* (Linnaeus, 1758)**

**Material examined.** Many specimens: GILAN: Ganjeh, 14.v.-13.vi.1995; Gyssom, 11.-18.vi.1995; Lashte Nesha, 31.vii.2002; Manjil, 15.-17.ix.2000; Masuleh, 8.-26.vi.1995, 4.-5.viii.2002; Rasht, iv.-vi.1995; Sang Rud, 19.-20.viii.2002; Tutkabon – Rudbar, 26.vi.-8.vii.1996, 22.ix.1998. ARDABIL: Firuzabad, 9.viii.2002. ZANJAN: near Gilvan, 11.-13.x.2000, 20.-21.vii.2002, 26.-27.vi.2004; Mamalan, 4.-6.vi.2002. TEHRAN: Asara, 13.vii.2002; Azad Bar, 6.-7.vii.2005. MAZANDARAN: Chalus, 16.-17.vii.2002; Hassan Abad, 15.-16.vii.2002. GOLESTAN: Alagol, 12.-13.vii.2003; Inche Borun, Alagol, 4.-5.vii.2004. KHORASAN: Anbaran 30 km W of Sarakhs, 11.vii.1994; Darreh Gaz, 18.v.1994; Golestan Park 150 km W of Bojnurd, 14.vii.1994; Lake Bazangan 50 km W of Sarakhs, 30.vi.1994; Mashhad, v.-vii.1994; Tabas, 16.-18.v.1994.

**Comments.** In gardens, meadows, and fields. On Poaceae. Holopalaeartic.

***Aelia alticola* Kiritshenko, 1914**

**Material examined.** ARDABIL: near Kivi, 1 ♂, 8.vii.2002.

**Comments.** In a mountain steppe. Known from Turkey, Azerbaijan, Armenia, Iraq, Iran, and Central Asia.

***Aelia furcula* Fieber, 1868**

**Material examined.** TEHRAN: Kandovan, 2 specimens, 3.-4.vii.1995.

**Comments.** In a mountain meadow. East-Mediterranean, extending from Greece, Russia and Ukraine to the Middle East, Central Asia, and Afghanistan.

*Aelia melanota* Fieber, 1868

**Material examined.** GILAN: Manjil, 1 specimen, 16.v.-14.vi.1995. GOLESTAN: Alagol, 1 specimen, 12.-13.vii.2003. KHORASAN: Efine near Esfideh, 1 specimen, 20.iv.1994; Golestan Park 150 km W of Bojnurd, 2 specimens, 14.vii.1994; Zaman Soofi 65 km W of Bojnurd, 8 specimens, 12.-13.vii.1994; Zard 100 km WNW Bojnurd, 5 specimens, 13.vii.1994.

**Comments.** In meadows and steppes. On Poaceae. Irano-Turanian.

*Neottiglossa leporina* (Herrich-Schaeffer, 1830)

**Material examined.** TEHRAN: Asara, 1 specimen, 13.vii.2002; Shahrestanak, 1 specimen, 10.-12.vii.1995. GOLESTAN: near Maraveh, 1 specimen, 21.vii.2005. KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994.

**Comments.** In meadows and steppes. On Poaceae. Euro-Siberian.

## Tribe Carpororini

*Alloeoglypta pretiosa* Kiritshenko, 1952

**Material examined.** TEHRAN: Karadj, numerous specimens, 12.-13.vii.2002. KHORASAN: Lotfabad, 1 specimen, 15.vi.1994; Mashhad, 1 specimen, v.-vii.1994.

**Comments.** In Karadj common in a botanical garden (at light). Central Asian. Known from Afghanistan, Kazakhstan, Kirgizia, Tadjikistan, and Turkmenistan. **New for Iran.**

*Anthemina lunulata* (Goeze, 1778)

**Material examined.** GILAN: Sang Rud, 1 specimen, 4.viii.1998. ARDABIL: 5-20 km W of Khalkhal, 2 specimens, 8.-9.viii.2002; Khalkhal – Kivi, 3 specimens, 4.viii.1996. SEMNAN: Rowyan, 1 specimen, 3.-4.vii.2003; near Shahrud, 2 specimens, 3.-4.vii.2004. ZANJAN: Mamalan – Abbar, 2 specimens, 20.-21.vii.2002. GOLESTAN: Alagol, 2 specimens, 12.-13.vii.2003. KHORASAN: Lake Bazangan 50 km W of Sarakhs, 1 specimen, 30.vi.1994; Nodeh 20-40 km ESE of Bojnurd, 1 specimen, 11.vii.1994.

**Comments.** In gardens and hilly steppes e.g. on Asteraceae. Euro-Siberian.

*Brachynema cinctum* (Fabricius, 1775)

**Material examined.** KHORASAN: Deh Shor 25 km N of Tabas, 1 specimen, 17.iv.1994; Tabas, 1 specimen, 16.-17.iv.1994.

**Comments.** On halophytes in saline steppes. Holomediterranean, extending to the Canary and Cape Verde Islands, the Middle East, Saudi Arabia, Yemen, Somalia, Ethiopia, Sudan, and Pakistan.

*Brachynema germarii* (Kolenati, 1846)

**Material examined.** Numerous specimens: GILAN: Dasht-e-Veel, 20.-25.viii.1998, 8.-10.ix.2000; Parudbar, 29.-30.vii.2003, 25.-26.vi.2004, 18.-19.vii.2005; Sang Rud, 19.-20.viii.2002; Sang Rud – Jirandeh, 25.vi.1996; Tutkaban – Rudbar, 15.ix.2000. SEMNAN: Kharghan 20 N of Shahrud, 4.vii.1994; Semnan, 2.-3.vii.2004; Shahrud, Rowyan, 16.-17.vii.2003, 3.-4.vii.2004; 25-30 km N of Shahrud, 4.vii.2004. ZANJAN: Gilankesh 15 km NW of Gilvan, 26.-27.vii.2004; Gilvan, 20.-21.vii.2002, 1.-2.vii.2005. GOLESTAN: 25 km W of Gonbad-e-Qavus, 22.-23.vii.2005; Gonbad, Bakhsh-e-Haft, 14.-15.vii.2003; Gorgan Mian Dareh, 13.-14.vii.2003; Talulestan, 15.-16.vii.2003; Tutkaban – Rudbar,



15.ix.2000. KHORASAN: 15 km E of Bojnurd, 15.vii.1994; Deh Shor 25 km W of Tabas, 17.iv.1994; near Kashmar, 22.-23.iv.1994; Parvand 80 km W of Sabzevar, 31.v.-1.vi.1994, 14.-15.v.1996; near Sabzevar, 31.v.-1.vi.1994; 25 km N of Tabas, 16.-17.iv.1994, 17.v.1994; 25 km NE of Yazd, 18.v.1994.

**Comments.** On halophytes in saline steppes. Holomediterranean, extending from France and Italy to North Africa, Ukraine, the Middle East, Central Asia, and China.

### *Brachynema signatum* Jakovlev, 1879

**Material examined.** GOLESTAN: Farsian, 1 specimen, 16.vii.2003; 25 km W of Gonbad-e-Qavus, 3 specimens, 22.-23.vii.2005; Gonbad, Bakhsh-e-Haft, 2 specimens, 14.-15.vii.2003.

**Comments.** On halophytes in saline steppes. Middle-Asian, known from Russia (Dagestan), Armenia, Azerbaijan, Georgia, Iran, Kazakhstan, Turkmenistan, and China.

### *Carpocoris (Carpocoris) coreanus* Distant, 1899

**Material examined.** Many specimens: GILAN: Rustam Abad – Salan Sar, 24.vii.1996; San Rud, 4.viii.1998. ARDABIL: Firuzabad, 9.viii.2002, 28.vii.2004; Ganjgeh, 9.-10.viii.2002; near Khalkhal, 9.-11.viii.1998; near Kivi, 8.vii.2002, 8.-9.viii.2002; Majareh, 9.viii.1998; Majareh – Kolor, 2.vii.1996, 15.ix.1998. EAST AZERBAIJAN: near Miyaneh, 18.vi.2005. SEMNAN: Kharghan 20-30 km N of Shahrud, 16.-17.vii.2003, 4.vii.2004; Shahrud, Rowyan, 3.-4.vii.2004. ZANJAN: Mamalan, 29.ix.-1.x.2000; 20-35 km E of Zanjan, 13.vii.2004. TEHRAN: Azad Bar, 10.vii.1995; Kandovan, 3.-4.vii.1995. KHORASAN: 15 km E of Bojnurd, 15.vii.1994; Khalkanlod 30 km E of Quchan, 7.vi.1994; Mashhad, vi.-vii.1994; Zard 100 km WNW of Bojnurd; 13.vii.1994; Zoshk near Shandiz, 24.v.1994.

**Comments.** In mountain forests and gardens. On Asteraceae etc. Widely distributed in eastern Palaearctic Asia, extending to southern Russia, the Middle East, and Pakistan.

### *Carpocoris (Carpocoris) fuscispinus* (Boheman, 1851)

**Material examined.** GILAN: Damashk – Bareh Sar, 1 specimen, 27.vii.2002; Fowman, 1 specimen, 15.v.-6.vi.1995; Ganjeh, 3 specimens, 14.v.-13.vi.1995; Gyssom, 1 specimen, 30.vi.-2.vii.1996; Manjil, 3 specimens, 16.v.-14.vi.1995; near Rustam Abad, 1 specimen, 13.vi.1995; Rustam Abad – Salan Sar, 1 specimen, 6.-8.v.2001; Tutkapon – Rudbar, 1 specimen, 15.ix.2000; Ziba Kenar, 2 specimens, 7.-10.vi.1995. ARDABIL: near Khalkhal, 1 specimen, 9.-11.viii.1998. ZANJAN: Mamalan – Abbar, 1 specimen, 20.-21.vii.2002. KHORASAN: Golestan Park 150 km W of Bojnurd, 4 specimens, 14.vii.1994.

**Comments.** In mountain forests, steppes, and gardens. Recorded from Asteraceae, Apiaceae etc. Holopalaearctic. *Carpocoris mediterraneus mediterraneus* Tamanini, 1958, and *C. m. atlanticus* Tamanini, 1958, were recently synonymized with *C. fuscispinus* (RIBES et al. 2007).

### *Carpocoris (Carpocoris) pudicus* (Poda, 1761)

**Material examined.** GILAN: Deylaman, 3 specimens, 9.v.-24.vi.1995; Lowshan, 1 specimen, 23.v.1995; Manjil, 4 specimens, 16.v.-14.vi.1995, 26.vi.1996; Masuleh, 2 specimens, 6.-26.vi.1996; Sang Rud, 5 specimens, 30.v.-1.vii.2003; Sang Rud – Jirandeh, 3 specimens, 31.v.1995. ARDABIL: Firuzabad, 1 specimen, 9.viii.2002; near Kivi, 2 specimens, 8.vii.2002; 5-20 km E of Kivi, 8.-9.viii.2002. ZANJAN: Gilankesh 15 km NW of Gilvan, 1 specimen, 26.-27.vii.2004.

**Comments.** In hilly forests, steppes, and gardens. On Asteraceae. North-Mediterranean, extending to Central Europe, Egypt, and the Middle East.

*Carpocoris (Carpocoris) purpureipennis (De Geer, 1773)*

**Material examined.** GILAN: Manjil, 1 specimen, 16.v.-14.vi.1995; Rustam Abad – Salan Sar, 3 specimens, 24.vii.1996, 5.-10.ix.2000. ARDABIL: Majareh – Kolor, 1 specimen, 15.ix.1998.

**Comments.** In hilly forests and gardens. On Apiaceae, Asteraceae etc. Euro-Siberian.

*Chroantha ornatula (Herrich-Schaeffer, 1842)*

**Material examined.** GILAN: Lowshan, 1 specimen, 17.ix.2000; Parudbar, 12 specimens, 18.-19.vii.2000, 25.-26.vi.2004. SEMNAN: Semnan, 3 specimens, 17.-18.vii.2003; Shahrud, Rowyan, 1 specimen, 3.-4.vii.2004. ZANJAN: Abbar, 1 specimen, 12.-14.v.2001; Gilankesh 15 km NW of Gilvan, 1 specimen, 26.-27.vi.2004; 8-15 km W of Gilvan, 1 specimen, 21.vii.-1.viii.2004; Mamalan – Abbar, 2 specimens, 29.ix.-1.x.2000, 20.-21.vii.2002. QAZVIN: Qazvin, 1 specimen, 21.vi.2003. KHORASAN: Feyzabad, 2 specimens, 16.v.1996; Lake Bazangan 50 km W of Sarakhs, 1 specimen, 30.vi.1994; near Sabzevar, 2 specimens, 31.vi.1994; 15-25 km N of Tabas, 1 specimen, 14.-15.v.1994; Tabas – Deh Shor, 7 specimens, 16.-17.iv.1994.

**Comments.** On *Suaeda* in saline habitats. Holomediterranean, extending to the Middle East, Central Asia, Saudi Arabia, Yemen, and Sudan.

*Cnephosa flavomarginata Jakovlev, 1880*

**Material examined.** TEHRAN: Kandovan, 1 specimen, 3.-4.vii.1995.

**Comments.** In a mountain steppe. Anatolian, known from Azerbaijan, Armenia, Turkey, and Iran.

*Codophila varia varia (Fabricius, 1787)*

**Material examined.** GILAN: Deylaman, 1 specimen, 9.v.-24.vi.1995; Manjil, 8 specimens, 22.ix.1998, 15.-17.ix.2000, 8.-10.v.2001; Parudbar, 1 specimen, 25.-26.vi.2004; Rustam Abad – Salan Sar, 3 specimens, 24.vii.1996, 8.-10.ix.2000; Sang Rud – Jirandeh, 1 specimen, 25.vi.1996. ARDABIL: Khalkhal – Kivi, 3 specimens, 4.ix.1996, 8.-9.viii.2002. SEMNAN: Kharghan 20 km N of Shahrud, 1 specimen, 16.-17.vii.2003; Shahrud, Rowyan, 1 specimen, 3.-4.vii.2004. ZANJAN: Gilvan, 4 specimens, 11.-13.x.2000. TEHRAN: 15 km S of Firuzkuh, 2 specimens, 2.vii.2004; Kandovan, 2 specimens, 3.-4.vii.1995; Shahrestanak, 1 specimen, 10.-12.vii.1995. KHORASAN: Golestan Park 150 km W of Bojnurd, 2 specimens, 14.vii.1994; Khargh 70 km SW of Quchan, 1 specimen, 8.-9.vi.1994; Zard 150 km WSW of Bojnurd, 2 specimens, 13.vii.1994.

**Comments.** In hilly steppes and forests. Holomediterranean, extending to Hungary, the Middle East, and Central Asia.

*Dolycoris baccarum (Linnaeus, 1758)*

**Material examined.** Many specimens: GILAN: Bamashk – Barasar, 27.vii.1996; Deylaman, 16.-20.vii.1996; Deylaman – Barasar, 23.vii.1996; Fowman, 15.v.-6.vi.1995; 35 km E of Khalkhal, 27.vi.2002; Lashte Nesha, 31.xii.2002; Lowshan, 23.v.1995; Rustam Abad – Salan Sar, 24.vii.1996, 8.-10.ix.2000; Tutkabar – Rudbar, 26.vi.-8.vii.1996. ARDABIL: near Firuzabad, 28.vii.2004; 20-30 km E of Khalkhal, 27.vi.1995, 1.-27.vii.1996; 10 km W of Khalkhal, 8.-9.vii.2002; Kivi, 8.vii.-11.viii.2002; 5-20 km E of Kivi, 8.-9.viii.2002; Majareh – Kolor, 22.vii.1996, 15.ix.1998. ZANJAN: Zanja, 13.-14.vii.2004; 20-30 km E of Zanja, 13.-14.vii.2004; Zanja, 13.-14.vii.2004. TEHRAN: Azad Bar, 8.-10.vii.1995; Kordan, 14.vii.2002.

**Comments.** In hilly forests, steppes and gardens. Holopalaeartic, also in India and Pakistan.

***Dolycoris penicillatus* Horváth, 1904**

**Material examined.** SEMNAN: Kharghan 20 km N of Shahrud, 4 specimens, 16.-17.vii.2004; Shahrud, Rowyan, 2 specimens, 3.-4.vii.2004. KHORASAN: Anbaran, 1 specimen, 11.vii.1994; Darreh Gaz, 1 specimen, 15.vi.1994; Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994; Khalkanlod 35 km E of Quchan, 1 specimen, 7.vi.1994; Khargh 20 km SW of Quchan, 3 specimens, 8.-9.vi.1994, 16.-17.vii.2003; Lake Bazangan 50 km W of Sarakhs, 1 specimen, 30.vi.1994; Nodeh 35-40 km ESE of Bojnurd, 1 specimen, 11.vii.1994; Zashk near Shandiz, 1 specimen, 24.v.1994.

**Comments.** In hilly steppes and forests. Middle-Asian. Known from Iran, Afghanistan, Kazakhstan, Kirgizia, Tadzhikistan, Turkmenistan, Uzbekistan, and China.

***Peribalus (Peribalus) strictus capitatus* (Jakovlev, 1889)**

**Material examined.** ARDABIL: 5-20 km E of Kivi, 1 specimen, 8.-9.viii.2002. KHORASAN: Zoshk near Shandiz, 1 specimen, 24.v.1994.

**Comments.** In hilly steppes. Known from Iran and Central Asia. Status recently revised by BELOUSOVA (2007).

***Peribalus (Peribalus) strictus strictus* (Fabricius, 1803)**

**Material examined.** ZANJAN: Gilvan, 1 specimen, 11.-13.x.2000; Mamalan, 1 specimen, 29.ix.-1.x.2000. SEMNAN: Shahrud, Rowyan, 1 specimen, 3.-4.vii.2004. KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vi.1994.

**Comments.** In hilly steppes, recorded on *Centaurea*. Holomediterranean. Generic status recently revised by BELOUSOVA (2007); *P. vernalis* (Wolff, 1804) was synonymized with *P. strictus* by RIBES et al. (2006).

***Ochyrotylus helvinus* Jakovlev, 1885**

**Material examined.** KHORASAN: near Parvand 70 km W of Sabzevar, 3 specimens, 31.v.-1.vi.1994, 4.vii.1994; Tabas – Deh Shor, 1 specimen, 16.-17.iv.1994.

**Comments.** In hilly steppes, known from many deciduous trees. Middle-Asian, known from Azerbaijan, Iran, Kazakhstan, Turkmenistan, Uzbekistan, Mongolia, and northwestern China.

***Palomena prasina* (Linnaeus, 1761)**

**Material examined.** GILAN: Seravan, 1 specimen of f. *rosea* O. F. Müller, 1776, 4.-6.ix.2000. KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994.

**Comments.** In hilly forests on deciduous trees such as *Carpinus*, *Quercus*, and *Populus*. Euro-Siberian.

***Rhombocoris regularis* (Herrich-Schaeffer, 1851)**

**Material examined.** TEHRAN: Kandovan, 1 specimen, 3.-4.vii.1995.

**Comments.** In a mountain steppe. Anatolian, known from Dagestan, Azerbaijan, Armenia, Turkey, Syria, and Iran.

*Staria lunata* (Hahn, 1835)

**Material examined.** GILAN: Rustam Abad – Salan Sar, 1 specimen, 24.vii.1996.

**Comments.** In mountain steppes. Recorded on *Thymus*, *Galium*, and *Centaurea*. Holomediterranean, extending to Central Europe and the Middle East.

## Tribe Eysarcorini

*Eysarcoris ventralis* (Westwood, 1837)

**Material examined.** Numerous specimens: GILAN: Anzali, 30.viii.1998, 2.iii.2000; Dasht-e-Veel, 20.-28.viii.1998, 8.-10.ix.2000; Jafrud, 2.-3.vii.2000, 31.vii.-1.viii.2002; Gyssom, 1.ix.1998; Lashte Nesha, 31.vii.2002; Lowshan, 6.vii.1996, 18.-20.viii.2002; Manjil, 15.-17.ix.2000; Masuleh, 28.vii.1996; Nasir Mahaleh, 14.-15.viii.2002; Parudbar, 29.-30.vii.2003, 25.-26.vi.2004, 29.-30.vii.2005; Rasht, 2.-3.viii.1994, iv.-v.1995, viii.-ix.1998; Rud Sar, 3.v.1995; Rustam Abad – Salan Sar, 8.-10.ix.2000; Seravan, 4.-6.ix.2000; Ziba Kenar, 7.-10.vi.1995, 29.vi.1996, 1.vii.-1.viii.2002. ARDABIL: Firuzabad, 9.viii.2002. SEMNAN: 25-30 km N of Shahrud, 4.vii.2004. ZANJAN: Gilankesh 15 km NW of Gilvan, 26.-27.vi.2004; Gilvan, 1.-2.vii.2005; 8-15 km W of Gilvan, 31.vii.-1.viii.2004; Mamalan, 20.ix.-1.x.2000; Mamalan – Abbar, 20.-21.vii.2002. TEHRAN: Asara, 23.vii.2002; 5 km N of Karadj, 13.-14.vii.2002; Kordan, 14.vii.2002; Shahrestanak, 10.-12.vii.1995. MAZANDARAN: Chalus, 12.-13.vii.2003; Hassan Abad, 15.-16.vii.2002. GOLESTAN: Alagol, 12.-13.vii.2003; Gonbad, Bakhsh-e-Haft, 14.-15.vii.2003; Gonbad-e-Qavus, 22.-23.vii.2005; Gorgan, Mian Dareh, 13.-14.vii.2003; Inche Borun, Alagol, 4.-5.vii.2004; Karim Eshan 25 km N of Kalaleh, 21.-22.vii.2005; Talulestan, 15.-16.vii.2003. KHORASAN: Golestan Park 150 km W of Bojnurd, 14.vii.1994; Lotfabad, 15.vi.1994; Tabas, 16.-18.v.1994.

**Comments.** In meadows and steppes on Poaceae. Of Mediterranean origin, extending to Central Europe, the Middle East, Central Asia, and far into the Oriental and Ethiopian regions.

*Stagonomus (Stagonomus) amoenus* (Brullé, 1832)

**Material examined.** GILAN: Rustam Abad – Salan Sar, 3 specimens, 6.-8.v.2001.

**Comments.** In a hilly steppe. Recorded on *Salvia*. Euro-Mediterranean, extending to Central Europe, North Africa, the Middle East, Central Asia, and India.

## Tribe Halyini

*Apodiphus amygdali* (Germar, 1817)

**Material examined.** Several specimens: GILAN: Manjil, Safid Rud (GHAURI 1977: 102); Masal forest, 28.vi.1996. KHORASAN: Darreh Gaz, 15.vi.1994.

**Comments.** On deciduous trees such as *Amygdalus*, *Prunus*, *Pistacia*, *Platanus*, *Populus*, and *Tamarix*. Pontomediterranean, extending to the Middle East and Central Asia.

*Apodiphus integriceps* Horváth, 1888

**Material examined.** KHORASAN: Kashmar, 2 specimens, 22.-23.vi.1994.

**Comments.** On deciduous trees. East-Eremian, known from Yemen, Iran, Central Asia, Afghanistan, Pakistan, and India.

***Mustha spinulosa* (Lefebvre, 1831)**

**Material examined.** GILAN: Dasht-e-Veel, 1 specimen, 20.-25.viii.1998; Manjil, 1 specimen, 20.-26.ix.1998; Sang Rud, 2 specimens, 4.viii.1998, 27.-28.vi.2005. TEHRAN: near Karadj, 9 specimens, 12.-14.vii.2002. KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994; near Zaman Soofi 65 km W of Bojnurd; 2 specimens, 12.-13.vii.1994.

**Comments.** In hilly forests on deciduous trees such as *Quercus*, *Prunus*, and *Crataegus*, also found on *Cupressus*. Pontomediterranean, extending to Egypt, the Middle East, and Central Asia.

## Tribe Menidini

***Anchesmus rubriplaga* (Walker, 1867)**

**Material examined.** KHORASAN: Tabas – Deh Shor, many specimens, 16.-17.iv.1994.

**Comments.** On *Tamarix*. Eremian, extending from North Africa to the Arabian Peninsula, Israel, Jordan, and Iran.

***Desertomenida albula* Kiritshenko, 1914**

**Material examined.** GOLESTAN: Alagol, 1 specimen, 12.-13.vii.2003; Inche Borun, 1 specimen, 22.vii.2005. KHORASAN: near Parvand 70 km W of Sabzevar, 5 specimens, 31.v.-1.vi.1994, 4.vii.1994.

**Comments.** In saline steppes with *Tamarix*, *Atriplex halimus*, *Cynodon dactylon*, and *Suaeda* sp. Middle-Asian, extending to Iran, Mongolia and northwestern China.

## Tribe Pentatomini

***Acrosternum arabicum* Wagner, 1959**

**Material examined.** Many specimens: GILAN: Dasht-e-Veel, 20.-25.viii.1998; Jirandeh, 21.-23.ix.2000; Lowshan, 18.-20.viii.2002; Manjil, 20.-26.ix.1998, 8.-10.v.2001; Parudbar, 25.-26.vi.2004, 20.-30.vii.2005; Sang Rud, 19.-20.viii.2002. ZANJAN: Abbar, 20.ix.-9.x.2000, 14.-15.v.2001; 8-15 km W of Gilvan, 31.vii.-1.viii.2004; Jilan Keshe, 9.-13.x.2000. SEMNAN: Kharghan 20 km N of Shahrud, 16.-17.vii.2003; Semnan, 2.-3.vii.2004. TEHRAN: Kordan, 14.vii.2002. MAZANDARAN: Chalus, 16.-17.vii.2002, 12.-13.vii.2003. GOLESTAN: Gonbad, Bakhst-e-Haft, 14.-15.vii.2003; Gorgan, Mian Dareh, 1.-14.vii.2003. KHORASAN: 15 km E of Bojnurd, 15.vii.1994; Feyzabad, 16.v.1996; 15-25 km N of Tabas, 14.-15.v.1994.

**Comments.** In hilly forests. East-Eremian, known from Greece, Yemen, Saudi Arabia, the Middle East, and Central Asia.

***Acrosternum breviceps* (Jakovlev, 1889)**

**Material examined.** Many specimens: GILAN: Lowshan, 18.-20.viii.2002; Parudbar, 29.-30.vii.2003, 25.-26.vi.2004, 29.-30.vii.2005; Sang Rud, 19.-28.viii.2002. ZANJAN: Gilvan, 30.-31.vii.2005; Mamalan, 12.-14.v.2001; Mamalan-Abbar, 20.-21.vii.2002. TEHRAN: Karadj, 12.-13.vii.2002; Kordan, 14.vii.2002. KHORASAN: Lotfabad, 15.vi.1994.

**Comments.** In hilly forests and steppes. Irano-Turanian.

***Acrosternum heegeri* Fieber, 1861**

**Material examined.** Several specimens: GILAN: Dasht-e-Veel, 20.-25.viii.1998, 27.-29.vii.2002; Seravan, 4.-6.ix.2000. GOLESTAN: Gorgan, Mian Dareh, 13.-14.vii.2003; Karim Eshan 35 km N of Kalaleh, 21.-22.vii.2005. MAZANDARAN: Chalus, 12.-13.vii.2003.

**Comments.** In hilly forests and gardens. Holomediterranean, extending to the Middle East and tropical Africa.

***Acrosternum millierei* (Mulsant & Rey, 1866)**

**Material examined.** KHORASAN: Feyzabad, 1 specimen, 16.v.1996.

**Comments.** In a hilly forest. Holomediterranean, extending to the Middle East, Central Asia, and tropical Africa.

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

**Material examined.** Many specimens: GILAN: Dasht-e-Veel, 20.-25.viii.1998; Deylaman, 16.viii.1998; Jafrud, 31.vii.-1.viii.2002; Fowman, 15.v.-6.vi.1995; Jafrud, 31.vii.-1.viii.2002; Lowshan, 18.-20.viii.2002; Nasir Mahaleh, 14.-15.viii.2002; Rasht, 2.-3.ix.1994, vi.-viii.1996, 4.iii.2000; Rustam Abad, 8.-10.ix.2002; Seravan, 4.-6.ix.2000; Zina Kenar, 4.-6.ix.2000. ARDABIL: Kivi, 9.-11.viii.2002. MAZANDARAN: Chalus, 12.-13.vii.2003; Hassan Abad, 15.-16.vii.2003; Qaem Shahr, 1.-2.vii.2004. GOLESTAN: Gilankesh, 5.-6.vii.2004; Gorgan Mian Dareh, 13.-14.vii.2003.

**Comments.** In hilly steppes, gardens, and forests. Cosmopolitan.

***Pentatoma (Pentatoma) rufipes* (Linnaeus, 1758)**

**Material examined.** GILAN: 40-50 km E of Khalkhal, 1 specimen, 27.vi.1996.

**Comments.** In a hilly forest. Euro-Siberian.

***Rhaphigaster nebulosa* (Poda, 1761)**

**Material examined.** GILAN: 10 km W of Asalem, 1 specimen, 5.-7.vii.2002; Dasht-e-Veel, 1 specimen, 10.-12.v.2001; Jahrud near Ziba Kenar, 1 specimen, 19.ii.-7.iii.2000; Lahijan, 2 specimens, 20.-21.v.1995; Rasht, 1 specimen, ix.2000; Rudbar – Tutkaban, 1 specimen, 2.ii.2000; Seravan, 1 specimen, 4.-6.ix.2000. ARDABIL: 10 km W of Khalkhal, 1 specimen, 8.-9.vii.2002; Majareh – Kolor, 1 specimen, 21.vii.1996. ZANJAN: Gilvan, 1 specimen, 30.-31.vii.2005. TEHRAN: Shahrestanak, 1 specimen, 10.-12.vii.1995.

**Comments.** On deciduous trees and shrubs in hilly steppes and gardens. Holomediterranean, extending to Central Europe, the Middle East, Central Asia, and Pakistan.

## Tribe Piezodorini

***Pausias martini* (Puton, 1890)**

**Material studied.** GILAN: Lowshan, 2 specimens, 18.-20.viii.2002. ZANJAN: 8-15 km W of Gilvan, 4 specimens, 11.vii.-1.viii.2004; Jilan Keshe, 2 specimens, 9.-13.x.2000. TEHRAN: Karadj, 1 specimen, 12.-13.vii.2002.

**Comments.** In hilly forests and steppes. Anatolian, known from Turkey, Armenia, Azerbaijan, Iraq, Iran, and Syria.

***Piezodorus lituratus* (Fabricius, 1794)**

**Material studied.** GILAN: Manjil, 1 specimen, 8.-10.v.2001; Masuleh, 3 specimens, 6.-26.vi.1995; Rustam Abad

– Salan Sar, 2 specimens, 24.vii.1996, 6.-8.v.2001; Tutkabon – Rudbar, 2 specimens, 26.v.-8.vii.1996, 10.-12.v.2001. MAZANDARAN: Hassan Abad, 1 specimen, 15.-16.vii.2002.

**Comments.** On deciduous trees and shrubs in hilly forests and steppes. Holomediterranean, extending to Central Europe, Ukraine, Russia, the Middle East, Central Asia, and northwestern China.

#### Tribe Sciocorini

##### *Menaccarus (Orocephalus) deserticola* Jakovlev, 1900

**Material studied.** KHORASAN: Parvand 70 km W of Sabzevar, 3 specimens and 1 nymph, 31.v.-1.vi.1994.

**Comments.** In a sandy steppe. Irano-Turanian, known from southern Russia, Kazakhstan, Iran, Tadjikistan, and Turkmenistan.

##### *Sciocoris (Aposciocoris) macrocephalus* Fieber, 1851

**Material studied.** TEHRAN: Kandovan, 2 specimens, 3.-4.vii.1995.

**Comments.** In hilly steppes. Euro-Siberian, extending to north-west Africa, the Middle East, and Central Asia. **New for Iran.**

##### *Sciocoris (Aposciocoris) luteolus* Fieber, 1861

**Material studied.** ARDABIL: Khalkhal – Kivi, 1 specimen, 4.x.1996; Majareh – Khalkhal, 1 specimen, 22.vii.1995. KHORASAN: Khalkanlod 30 km E of Quchan, 1 specimen, 7.vi.1994.

**Comments.** In hilly steppes. Pontomediterranean, extending to Spain, Tunisia, the Middle East, and Afghanistan.

##### *Sciocoris (Neosciocoris) conspurcatus conspurcatus* Klug, 1845

**Material studied.** Many specimens: KHORASAN: Can Chiroc 50 km S of Tabas, 17.v.1994; Tabas, 15.-18.v.1994; Tabas – Deh Shor, 16.-17.iv.1994.

**Comments.** In hilly steppes. Holomediterranean, extending to the Middle East, the Arabian Peninsula, Djibouti, and Sudan.

##### *Sciocoris (Neosciocoris) maculatus* Fieber, 1851

**Material studied.** GILAN: Deylaman, 3 specimens, 16.-20.vii.1996.

**Comments.** In a hilly steppe. Holomediterranean, extending to the Middle East.

##### *Sciocoris (Parasciocoris) capitatus* Jakovlev, 1882

**Material studied.** Many specimens: GILAN: Sang Rud, 21.ix.2000, 19.-20.viii.2002. TEHRAN: Azad Bar, 8.-10.xii.1995. KHORASAN: Can Chiroc 50 km S of Tabas, 17.v.1994.

**Comments.** In hilly steppes. Irano-Turanian.

##### *Sciocoris (Sciocoris) deltocephalus* Fieber, 1861

**Material studied.** ARDABIL: Khalkhal – Kivi, 1 specimen, 4.viii.1996. TEHRAN: Kandovan, 1 specimen, 3.-4.vii.1995.

**Comments.** In hilly steppes. East-Mediterranean, extending to the Middle East, Central Asia, north-west China, and Pakistan.

***Sciocoris (Sciocoris) cursitans cursitans (Fabricius, 1794)***

**Material studied.** GILAN: Rustam Abad – Salan Sar, 1 specimen, 6.-8.v.2001.

**Comments.** In a hilly garden. Euro-Siberian. **New for Iran.**

***Sciocoris (Sciocoris) sp. prope hoberlandti Wagner, 1954***

**Material studied.** GILAN: Ganjeh, 1 specimen, 14.v.-13.vi.1995; Rustam Abad – Salan Sar, 2 specimens, 6.-8.v.2001.

**Comments.** In hilly gardens.

***Sciocoris (Sciocoris) ogivus Jakovlev, 1894***

**Material studied.** GILAN: Ganjeh, 1 specimen, 14.v.-13.vi.1995.

**Comments.** In a hilly steppe. Anatolian. Known from Russian part of Caucasus, Azerbaijan, Armenia, Georgia, Turkey, and Iran.

***Sciocoris (Sciocoris) sulcatus Fieber, 1851***

**Material studied.** TEHRAN: Azad Bar 70 km W of Karadj, 2410 m a.s.l., 1 specimen, 10.vii.1995.

**Comments.** In a mountain steppe. Holomediterranean, extending to Central Europe, the Middle East, and Central Asia.

Tribe Strachiini

***Bagrada (Nitilia) abeillei Puton, 1881***

**Material studied.** GILAN: Manjil, 13 specimens, 16.v.-14.vi.1995, 26.vi.1996, 22.ix.1998, 6.-10.v.2001; Sang Rud, 1 specimen, 4.viii.1998; Sang Rud – Jirandeh, 2 specimens, 31.v.1995, 26.viii.1996; Tutkabon – Rudbar, 1 specimen, 2.viii.1998. ZANJAN: Gilvan, 1 specimen, 11.-13.x.2000; Mamalan, 4 specimens, 12.-14.v.2001, 4.-6.vi.2002. SEMNAN: Shahrud, Rowyan, 1 specimen, 3.-4.vii.2004. KHORASAN: Darreh Gaz, 2 specimens, 15.vi.1994; Tabas, 1 specimen, 16.-17.iv.1994.

**Comments.** In steppes and fields. Eastern Mediterranean, known from Greece, Egypt, Turkey, Caucasus, Iran, Iraq, Syria, Lebanon, Israel, and Saudi Arabia.

***Eurydema (Eurydema) laticollis Horváth, 1907***

**Material studied.** ARDABIL: 10 km W of Khalkhal, 1 specimen and 1 nymph, 8.-9.vii.2002.

**Comments.** In a mountain steppe. Known from southern Russia, Turkey, and Iran.

***Eurydema (Eurydema) oleracea (Linnaeus, 1758)***

**Material studied.** TEHRAN: Azad Bar, 2 specimens, 8.-10.vii.1995. KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994.



**Comments.** In mountain steppes. On Brassicaceae and Poaceae. Euro-Siberian.

***Eurydema (Eurydema) ornata (Linnaeus, 1758)***

**Material studied.** Numerous specimens: GILAN: Damashk – Barreh Sar, 27.vii.2002; Darreh Dasht, 26.v.-20.vi.1995; Ganjeh, 14.v.-13.vi.1995; Lowshan, 23.v.1995, 30.vii.2003; Manjil, 15.v.-14.vi.1995; Parudbar, 27.-28.vi.2005; Rustam Abad – Salan Sar, 24.vii.1995, 24.vii.1996, 5.-8.v.2001; Sang Rud, 29.-30.vii.2003; Tutkaban – Rudbar, 29.v.-28.vi.1995. ARDABIL: near Khalkhal, 9.-11.viii.1998. ZANJAN: Gilankesh 15 km NW of Gilvan, 26.-27.vi.2004; Gilvan, 1.-2.vii.2005; Mamalan – Abbar, 20.-21.vii.2002. TEHRAN: 15 km S of Firuzkuh, 2.vii.2004; Kordan, 14.vii.2004. MAZANDARAN: Hassan Abad near Chalus, 6.-7.vii.1995, 15.-16.vii.2002. KHORASAN: Anbaran 30 km W of Sarakhs, 11.vii.1994; Golestan Park 150 km W of Bojnurd, 14.vii.1994; Mashhad, v.-vii.1994; Nodeh 35-40 km ESE of Bojnurd, 11.vii.1994; Zard 100 km WNW of Bojnurd, 13.vii.1994; Zoshk near Shandiz 40 km W of Mashhad, 11.iv.1994.

**Comments.** In hilly steppes, forests and gardens. On Brassicaceae, Solanaceae, Cistaceae, and Asteraceae. Holopalaeartic, extending to Ethiopia, India, and Pakistan.

***Eurydema (Horvatheurydema) fieberi Fieber, 1837***

**Material studied.** TEHRAN: 25 km NE of Firuzkuh, 1 specimen, 19.vii.2003.

**Comments.** In a mountain meadow. Recorded on Brassicaceae and Rubiaceae. Holomediterranean, extending to Central Europe, North Africa, the Middle East, Central Asia, and India.

***Eurydema (? subgenus) pulchrigena Kiritschenko, 1925***

**Material studied.** GILAN: Jirandeh, 2 specimens, 6.-8.vii.1996. TEHRAN: Azad Bar, 7 specimens, 8.-10.vii.1995.

**Comments.** In mountain steppes. Irano-Turanian, known from Iran, Tadjhikistan, Uzbekistan, and Afghanistan.

Subfamily Podopinae  
Tribe Graphosomatini

***Ancyrosoma leucogrammes (Gmelin, 1790)***

**Material examined.** GILAN: Damashk – Barah Sar, 1 specimen, 27.vii.2002; Ganjeh, 4 specimens, 14.v.-13.vi.1995; Lowshan, 1 specimen, 23.v.1995; Manjil, 5 specimens, 16.v.-14.vi.2000; Tutkaban – Rudbar, 2 specimens, 22.ix.1998. ZANJAN: Gilankesh 15 km NW of Gilvan, 1 specimen, 26.-27.vi.2004; Gilvan, 11 specimens, 11.-13.x.2000; Mamalan – Abbar, 1 specimen, 20.-21.vii.2002. KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994.

**Comments.** In hilly steppes. Holomediterranean, extending to Central Europe, the Middle East and Central Asia.

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

**Material examined.** Numerous specimens: GILAN: Lahijan, 2.v.1995; Lashte Nesh, 31.vii.2002; Lounak, 16.viii.1998; Masuleh, 3.vii.1996, 4.-5.viii.2002; Rustam Abad – Salan Sar, 8.-10.ix.2000; Sang Rud, 30.vi.-1.vii.2003; Seravan, 4.-8.ix.2000; Ziba Kenar, 30.iv.1995. ZANJAN: Abbar, 12.-14.v.2001; Gilankesh 15 km NW of Gilvan, 26.-27.vi.2004; near Gilvan, 20.-21.vii.2002, 31.vii.-1.viii.2004. TEHRAN: Asara, 13.vii.2002; Azad Bar, 6.-7.vii.2005; Shahrestanak, 10.-12.vii.1995. MAZANDARAN: Chalus, 12.-13.vii.2003. KHORASAN: Anbaran 60 km W of Sarakhs, 14.vii.1994; Golestan Park 150 km W of Bojnurd, 14.vii.1994.

**Comments.** On Apiaceae in steppes. The Iranian specimens belong to the form *italicum* O. F. Müller, 1766. Holomediterranean, extending to Central Europe, the Middle East and Central Asia.

***Graphosoma melanoxanthum* Horváth, 1903**

**Material examined.** TEHRAN: Azad Bar, 2410 m a.s.l., 4 specimens, 8.-10.vii.1995; Kandovan, 2550 m a.s.l., 2 specimens, 3.-4.vii.1995.

**Comments.** On Apiaceae in mountain steppes. Anatolian, known from Turkey, Azerbaijan, Armenia, Georgia, and Iran.

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

**Material studied.** GILAN: Ganjeh, 1 specimen, 14.v.-13.vi.1995.

**Comments.** In a hilly steppe. Known on Apiaceae. Holomediterranean, extending to the Middle East and Central Asia.

***Leprosoma tuberculatum* Jakovlev, 1876**

**Material studied.** GILAN: Sang Rud, 1 specimen, 20.ix.1998. KHORASAN: Golestan Park 150 km W of Bojnurd, 1 specimen, 14.vii.1994. TEHRAN: Kordan, 2 specimens, 14.vii.2002.

**Comments.** In a forest with *Salix*, *Populus*, *Platanus* and rich undergrowth in a valley of a mountain river, as well as in hilly steppes. Middle-Asian, known from South Russia and the Middle East to China. *Leprosoma inaequale* Horváth, 1911, was recently synonymized with *L. tuberculata* (GAPON 2008).

***Putonia asiatica* Jakovlev, 1885**

**Material studied.** KHORASAN: Sarakhs, 1 specimen, 29.-30.iv.1994.

**Comments.** In a steppe. Irano-Turanian, known from European part of Kazakhstan, Azerbaijan, Iran, Syria, Central Asia, and Pakistan.

***Oplistochilus contestor* (Kiritshenko, 1966)**

**Material examined.** KHORASAN: Can Chiroc 50 km S of Tabas, 1 specimen, 17.v.1994; Tabas, 1 specimen, 16.-18.v.1994.

**Comments.** In hilly steppes. Endemic for Iran. The generic status of *Sternodontus contestor* Kiritshenko, 1966, was recently revised by GAPON (2007b) and the species was transferred to *Oplistochilus* Jakovlev, 1887.

***Tholagmus breviceps* Jakovlev, 1883**

**Material studied.** KHORASAN: Khargh 70 km SW of Quchan, 1 specimen. 8.-9.vi.1994.

**Comments.** In a hilly steppe. Irano-Turanian, known from Iran and Central Asia.

***Ventocoris (Selenodera) bulbifer* Seidenstücker, 1964**

**Material studied.** GILAN: Lowshan, 2 specimens, 23.v.1995.

**Comments.** In a hilly steppe. Anatolian, known from Turkey, Armenia and Azerbaijan. **New for Iran.**

***Ventocoris (Ventocoris) advena* (Horváth, 1896)**

**Material studied.** KHORASAN: Sarakhs, 1 specimen, 29.-30.iv.1994.

**Comments.** In a hilly steppe. Irano-Turanian, known from Iran and Central Asia.

## Tribe Podopini

***Podops (Opocrates) annulicornis* Jakovlev, 1877**

**Material examined.** GILAN: Rasht, 1 specimen, 4.vi.1995; Ziba Kenar, 1 specimen, 30.iv.1995.

**Comments.** In gardens. Middle-Asian, known from South Russia, Azerbaijan and Kazakhstan. **New for Iran.**

## Tribe Tarisini

***Tarisa elevata* Reuter, 1901**

**Material examined.** KHORASAN: Esfideh, 2 specimens, 26.iv.1994; Parvand 80 km W of Sabzevar, several specimens, 31.v.-1.vi.1994, 14.-15.vi.1996.

**Comments.** In sandy steppes. Middle-Asian, extending to South Russia, Iran, Afghanistan, Mongolia and north-west China.

***Tarisa subspinosa subspinosa* (Germar, 1839)**

**Material examined.** ZANJAN: near Gilvan, 1 specimen, 20.-21.vii.2002. QAZVIN: Qazvin, 1 specimen, 21.vi.2003. Several specimens: KHORASAN: Golestan Park 150 km W of Bojnurd, 14.vii.1994; near Kahe 30-60 km W of Kashmar, 21.-22.vi.1994; Lake Bezangan 50 km W of Sarakhs, 30.v.1994; Nodeh 30-40 km ESE of Bojnurd, 11.vii.1994; near Parvand, 31.v.-1.vi.1994; near Sabzevar, 3.vii.1994; Sarakhs, 29.-30.iv.1994; Tabas – Deh Shor, 16.-17.iv.1994.

**Comments.** On halophytes such as *Anabasis*, *Suaeda*, and *Zygophyllum*. Eastern parts of the Eremian subregion, extending to South Russia, Ukraine, the Middle East, Central Asia, Afghanistan, Pakistan, and India.

***Tarisa virescens* Herrich-Schaeffer, 1851**

**Material examined.** TEHRAN: 25 km SE of Firuzkuh, 1 specimen, 18.vii.2003. KHORASAN: Esfideh, 1 specimen, 20.iv.1994; Sarakhs, 1 specimen, 29.-30.iv.1994.

**Comments.** In sandy steppes; recorded on *Artemisia*. Middle-Asian, known from South Russia, Turkey, Caucasus, Israel, Syria, and Central Asia. **New for Iran.**

## Discussion

Of the 90 identified species, 33 species (36.7 %) represent the Anatolian, Middle-Asiatic, Irano-Turanian, Iranian, and Syrio-Anatolian elements, 31 species (34.4 %) the Mediterranean element, and 18 species (20 %) the Western-Palaeartic, Holopalaearctic and Eastern-Palaeartic elements. Four species are Eremian, two species endemic, one species cosmopolitan, and one species pantropical.

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