

## Studies on the Lygaeidae s. lat. (Heteroptera) of Gilan and the adjacent provinces in northern Iran

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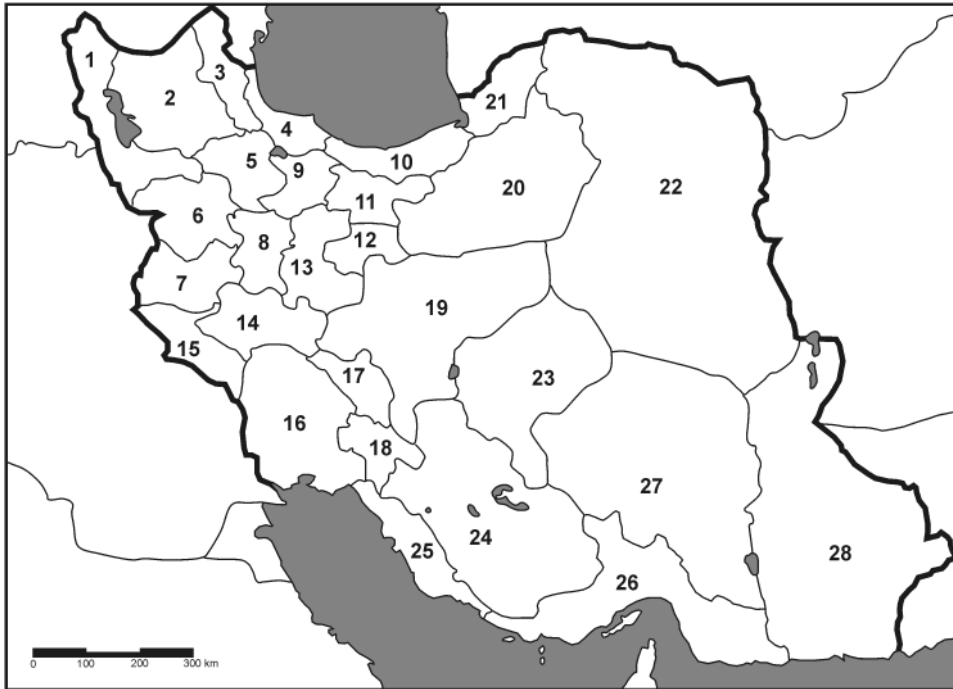
**Abstract.** A list of 91 species of Lygaeidae s. lat. (subfamilies Lygaeinae, Orsillinae, Ischnorrhynchinae, Cyminae, Blissinae, Henestarinae, Artheneinae, Heterogastrinae, Oxycareninae, Pachygronthinae, Rhyparochrominae) from Gilan and the adjacent provinces is provided. The following 12 species and one subspecies are new for Iran: *Arocatus melanocephalus* (Fabricius, 1798), *Kleidocerys privignus* (Horváth, 1894), *Cymus clavicolus* (Fallén, 1807), *C. glandicolor* Hahn, 1832, *Geocoris (Geocoris) desertorum* (Jakovlev, 1871), *Holcocranum diminutum umbrinum* Linnavuori, 1984, *Platyplax salviae* (Schilling, 1829), *Macroplox fasciata fasciata* (Herrich-Schaeffer, 1835), *Auchenodes utu* Linnavuori, 1984, *Eremocoris abietis fraternus* Horváth, 1883, *Taphropeltus contractus* (Herrich-Schaeffer, 1835), *Rhyparochromus pini* (Linnaeus, 1758), and *Pachybrachius fracticollis* (Schilling, 1829).

**Key words.** Heteroptera, Lygaeoidea, Iran, Gilan, faunistics, checklist, new records

### Introduction

Several entomological expeditions have been done to Iran. The most important were the Czechoslovak-Iranian expeditions in 1970, 1973 and 1977 (HOBERLANDT 1974, 1981, 1983). HOBERLANDT (1954, 1959) also published two articles on material collected by Iranian entomologists. These investigations focused predominantly on central and southern parts of Iran. Only in 2001, Austrian entomologists visited the Golestan province in northern Iran (HEISS 2002). This paper is a continuation of my previous papers dealing with the true bug fauna of Gilan (LINNAVUORI & HOSSEINI 2000, LINNAVUORI 2006, 2007a,b). It is based on investigations I made together with my wife Sakineh Linnavuori in the Gilan province and adjacent areas in northern Iran since 1994; it also deals with some species found in the eastern Khorasan province.

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



**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 & Boyer-Ahmad; 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).

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 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.** The sandy shore 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 with 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

All specimens are deposited in the R. E. Linnavuori collection and the College of Agriculture in the Gilan University. The system and nomenclature follows PÉRICART (2001). If the exact number of the collected specimens is not given, the following approximations are used: several = 5-10, many = 11-20, and numerous = more than 20 specimens.

## Results

### LIST OF SPECIES

#### Family Lygaeidae s. lat.

##### Subfamily Lygaeinae

#### *Apterola (Apterola) lownii* (Saunders, 1876)

**Material examined.** GILAN: Sang Rud – Jirandeh, 1 specimen, 26.vi.1996.

**Comments.** In hilly habitats. Pontomediterranean, extending to the Middle East and Middle Asia.

#### *Arocatus melanocephalus* (Fabricius, 1798)

**Material examined.** GILAN: Darreh Dasht, 1 specimen, 18.-21.viii.1998; Rasht, several specimens, vi.-viii.1996, 8.ix.1998.

**Comments.** Known from *Ulmus*. Holomediterranean, extending to Central Europe, Russia and the Middle East. **New for Iran.**

***Caenocoris nerii* (Germar, 1847)**

**Material examined.** GILAN: Lowshan, 1 specimen, 7.ix.1998; Seravan, 1 specimen, 4.-6.ix.2000.

**Comments.** On *Nerium oleander*. Holomediterranean, extending widely to the Middle East, China, the Oriental region, and tropical Africa.

***Lygaeosoma sardeum sardeum* Spinola, 1877**

**Material examined.** GILAN: Darreh Dasht, 1 specimen, 27.v.-20.vi.1995; Manjil, 1 specimen, 16.v.-14.vi.1995; Rustam Abad – Salan Sar, 1 specimen, 24.vii.1996. ARDABIL: Majareh – Khalkhal, 2 specimens, 5.ix.1998; Majareh – Kolor, 1 specimen, 22.vii.1998. ZANJAN: Gilvan, 1 specimen, 11.-13.x.2000. TEHRAN: Kandovan, 2 specimens, 3.-4.vii.1995.

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

***Lygaeosoma sibiricum* Seidenstücker, 1962**

**Material examined.** GOLESTAN: Inche Borun, 1 ♂, 22.vii.2005.

**Comments.** On the shore of a small salty lake; with vegetation consisting of *Alhagi* and *Tamarix*. East-Palaeartic, extending to southern Russia, Ukraine, Turkey, Bulgaria, and the Czech Republic.

***Lygaeus equestris* (Linnaeus, 1758)**

**Material examined.** GILAN: Ganjeh, 1 specimen, 14.v.-13.vi.1995; Lounak, 1 specimen, 20.vii.1996; Manjil, 2 specimens, 15.-17.ix.2000; Masuleh, 1 specimen, 2.-28.vii.1966; Rasht, 2 specimens, iv.-vi.1995; Rustam Abad, 1 specimen, 6.-8.v.2001; Ziba Kenar, 1 specimen, 29.vi.1996. ARDABIL: near Khalkhal, 2 specimens, 8.-9.vii.2002, 9.-11.viii.2002; Kivi, 1 specimen, 9.-11.vii.2002; Majareh – Kolor, 1 specimen, 15.ix.1998.

**Comments.** In hilly steppes and forests. Holopalaeartic.

***Paranysius fraterculus fraterculus* Horváth, 1895**

**Material examined.** Several specimens: GILAN: Jirandeh, 6.-8.vii.1996; Sang Rud – Jirandeh, 31.v.1996.

**Comments.** In hilly steppes. Known from *Helichrysum* and *Astragalus*. In Middle and Central Asia, extending to southern Russia, Iran, Armenia, and Israel.

***Spilostethus pandurus* (Scopoli, 1763)**

**Material examined.** GILAN: Deylaman, 2 specimens, 9.v.-24.vi.1995; 35 km E of Khalkhal, 1 specimen, 27.vi.2002. ARDABIL: 20-30 km E of Khalkhal, 1 specimen, 1.-21.vii.1998; Khemes, 1 specimen, 7.-9.vii.2002; Majareh – Kolor, 1 specimen, 21.vii.1996. TEHRAN: Azad Bar, 1 specimen, 10.vii.1995.

**Comments.** In hilly steppes, gardens and fields. Palaeotropical, extending to the Mediterranean subregion, Central Europe and the Middle East.

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

**Material examined.** Many specimens: GILAN: Darreh Dasht, 23.ix.2000; Deylaman, 16.viii.1998; Jirandeh, 26.-27.vii.2002; Sang Rud, 21.ix.2000, 29.-30.vii.2003. ARDABIL: 20-30 m E of Khalkhal, 1.-21.vii.1996; Khemes, 7.-9.vii.2002; near Kivi, 8.-9.viii.2002, 28.-29.vii.2004. TEHRAN: Azad Bar, 8.-10.vii.1995; Kandovan, 3.-4.vii.1995.

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

Subfamily Orsillinae  
Tribe Orsillini

***Camptocoris longicornis* (Puton, 1874)**

**Material examined.** GILAN: Dasht-e-Veel, 1 specimen, 6.-8.vi.2002; Jirandeh, 4 specimens, 21.-23.ix.2000; 35 km E of Khalkhal, 1 specimen, 27.vi.2002; Lowshan, 1 specimen, 18.-20.viii.2002; Masuleh, 2 specimens, 21.-23.ix.2000, 1.-9.viii.2002. ZANJAN: Abbar, 1 specimen, 29.ix.-9.x.2000; Jilan Keshe, 2 specimens, 9.-13.x.2000; Mamalan, 1 specimen, 29.ix.-1.x.2000.

**Comments.** In hilly steppes on Poaceae, recorded from *Aristida*. Eremian, extending to Middle Asia.

***Orsillus depressus* (Mulsant & Rey, 1852)**

**Material examined.** GILAN: Sang Rud – Jirandeh, 4 specimens, 31.v.1995.

**Comments.** On *Juniperus excelsa*. Holomediterranean, extending to Central Europe, southern Russia, Ukraine, Turkey, Caucasus, and Middle Asia.

***Orsillus maculatus* (Fieber, 1861)**

**Material examined.** GILAN: near Rustam Abad, 1 specimen, 13.v.1996.

**Comments.** On *Cupressus sempervirens*, also recorded from *Pinus halepensis* and *Juniperus phoenicea*. Holomediterranean, extending to southern Russia, Ukraine, Turkey, Caucasus, Israel, Jordan, and Libya.

***Ortholomus punctipennis* (Herrich-Schaeffer, 1829)**

**Material examined.** GILAN: Darreh Dasht, 3 specimens, 27.v.-20.vi.1995; Jirandeh, 1 specimen, 6.-8.vii.1996; Rustam Abad – Salan Sar, 2 specimens, 21.vii.1998; Sang Rud, 5 specimens, 29.-30.vii.2003.

**Comments.** In hilly steppes. Euro-Siberian.

Tribe Nysiini

***Nysius cymoides* (Spinola, 1837)**

**Material examined.** Numerous specimens: GILAN: Anzali, 30.viii.-1.ix.1998; Damashk – Bareh Sar, 27.vii.2002; Darreh Dasht, 18.-21.viii.2001; Dasht-e-Veel, 10.-12.v.1998, 20.-25.viii.1998, 8.-10.ix.2000, 27.-29.vii.2002; Deylaman, 8.v.-24.vi.1995, 16.-20.vii.1996, 10.viii.1998; Gyssom, 30.vi.-2.vii.2001; Jirandeh, 6.-8.vii.1996, 21.-

23.ix.2000; Lowshan, 18.-20.viii.2002, 30.vii.2003; Manjil, 20.-26.ix.1998, 15.-17.ix.2000; Masuleh, 6.-20.vi.1995; Nasir Mahaleh, 14.-15.viii.2002; Parudbar, 29.-30.vii.2003, 25.-26.vi.2004, 29.-30.vii.2005; Rasht, 2.-3.viii.1994, viii.-ix.1998, ix.2000; Rustam Abad – Salan Sar, 24.vi.1996, 8.-10.ix.2000; Sang Rud, 13.vi.-1.vii.2003; Seravan, 4.-6.ix.2000; Tutkabon – Rudbar, 10.-12.v.2001, 6.-8.vi.2002; Ziba Kenar, 7.-10.vi.1995. ARDABIL: Ganjgeh, 9.-10.viii.2002; 10-20 km W of Khalkhal, 8.-9.vii.2002; 20-30 km E of Khalkhal, 3.vii.1996; Khemes, 7.-9.vii.2002; near Kivi, 8.vii.-11.viii.2002; Majareh – Kolor, 21.vii.1996. ZANJAN: Abbar, 20.ix.-9.x.2000, 14.v.2001; Jilan Keshe, 9.-13.x.2000; Kalvim, 1.x.2000; Mamalan, 29.ix.-9.x.2000, 12-14.v.2001; Mamalan – Abbar, 20.-21.vii.2002; Pircham, 7.-9.x.2000; 20-25 km E of Zanjan, 13.vii.2004. MAZANDARAN: Chalus, 16.-17.vii.2002, 12.-13.vii.2003. GOLESTAN: Alagol, 12.-13.vii.2003; Gilankesh, 5.-6.vii.2004; Gonbad Bakhst-e-Haft, 4.-5.vii.2004; 25 km W of Gonbad-e-Qavus, 22.-23.vii.2005; Gorgan, Mian Dareh, 13.-14.vii.2003; Talulestan, 15.-16.vii.2003. SEMNAN: Kharghan 20 km W of Shahrud, 16.-17.vii.2003; Kharghan 20 km N of Shahrud, 16.-17.vii.2003. TEHRAN: Azad Bar, 8.-10.vii.1995; 10-15 km SE of Firuzkuh, 18.-19.vii.2003; Kordan, 1.-4.vii.2002.

**Comments.** In steppes, meadows and fields. Holomediterranean, extending into Central Europe, the Middle East, Middle Asia, and Sudan.

### *Nysius graminicola graminicola* (Kolenati, 1845)

**Material examined.** Numerous specimens: GILAN: Anzali, 30.viii.-1.ix.1998, 2.iii.2000; Asalem forest, 13.-15.ix.1998; Dasht-e-Veel, 8.-9.x.2000; Ganjeh, 14.v.-13.vi.1995; Gyssom, 11.-18.vi.1995, 30.vi.-2.vii.1998, 10.iii.2000; Jirandeh, 26.-27.vii.2002; 35 km E of Khalkhal, 27.vi.2002; Lashte Nesha, 31.vii.2002; Lowshan, 23.v.1995, 17.ix.2000; Parudbar, 29.-30.vii.2003, 25.-26.vii.2004; Rasht, 2.-3.viii.1994, 7.-8.ix.1996; Rudbar – Tutkabon, 29.v.-28.vi.1995, 7.x.2000; Sang Rud, 21.ix.2000, 18.-28.viii.2002; Ziba Kenar, 7.-10.vi.1995. ARDABIL: Khalkhal – Kivi, 22.vii.-4.viii.1996, 9.-11.viii.1998, 8.-9.viii.2002; Khemes, 7.-9.vii.2002. ZANJAN: Gilankesh, 26.-27.vi.2004; Gilvan, 11.-13.x.2000; Kalvim, 1.x.2000; Mamalan, 12.-14.v.2001, 4.-6.vi.2002; Mamalan – Abbar, 20.-21.vii.2002; Pircham, 7.-9.x.2000. MAZANDARAN: Chalus, 12.-13.vii.2003. GOLESTAN: Alagol, 12.-13.vii.2003; Gonbad Bakhst-e-Haft, 14.-15.vii.2003; Gorgan Mian Dareh, 13.-14.vii.2003; Inche Borun, Alagol, 4.-5.vii.2004; Talulestan, 15.-16.vii.2003. TEHRAN: Gachsar, 13.vii.2002; Kordan, 14.vii.2002.

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

### *Nysius helveticus* (Herrich-Schaeffer, 1835)

**Material examined.** TEHRAN: Azad Bar, 2 specimens, 10.vii.1995; Kandovan, 3 specimens, 3.-4.vii.1995.

**Comments.** In hilly steppes. Euro-Siberian.

### *Nysius thymi thymi* (Wolff, 1804)

**Material examined.** GILAN: Parudbar, 2 specimens, 25.-26.vi.2004; near Rustam Abad, 2 specimens, 13.v.1995. GOLESTAN: Gilankesh, 1 specimen, 5.-6.vii.2002. TEHRAN: Azad Bar, 1 specimen, 8.-10.vii.1995; Gachsar, 2 specimens, 15.vii.2002.

**Comments.** In steppes and meadows on different plants such as Fabaceae, Caryophyllaceae, Asteraceae, and Poaceae. Holarctic.

## Subfamily Ischnorhynchinae

### *Kleidocerys privignus* (Horváth, 1894)

**Material examined.** GILAN: Gyssom, 30 specimens, 11.-12.vi.1995, 30.vi.-2.vii.1996; Jafrud, 1 specimen, 31.vii.-1.viii.2002; Sume'eh Sara, 1 specimen, 4.-5.viii.1994.

**Comments.** On *Alnus glutinosa* at the Caspian Sea coast. Known from Caucasus and Central Europe. **New for Iran.**

## Subfamily Cyminae

*Cymus clavicularis* (Fallén, 1807)

**Material examined.** GILAN: Anzali, 1 specimen, 30.viii.1998; Ganjeh, 4 specimens, 14.v.-13.vi.1995; Gyssom, 2 specimens, 30.vi.-9.vii.1996; Jahrud near Ziba Kenar, 1 specimen, 19.ii.-7.iii.2000; Lashte Nesha, 1 specimen, 30.iv.1995; Lowshan, 1 specimen, 8.vii.1996; Rasht, 1 specimen, iv.-v.1996; Rud Sar, 1 specimen, 3.v.1995; Ziba Kenar, several specimens, 29.vi.1996.

**Comments.** On *Juncus* and *Carex* spp. in wet meadows and marshes. Euro-Siberian. **New for Iran.**

*Cymus glandicolor* Hahn, 1832

**Material examined.** GILAN: Rasht, iv.-vi.1995. ARDABIL: Majareh – Khalkhal, 22.vii.1996. TEHRAN: Asara, 13.vii.2002.

**Comments.** On Cyperaceae and Juncaceae in wet meadows and marshes. Euro-Siberian. **New for Iran.**

*Cymus gracilicornis* Vidal, 1940

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

**Comments.** On Cyperaceae and Juncaceae. Eremian, extending from the Canary Islands to Egypt and the Middle East, Cape Verde Islands and Sudan.

*Cymus melanocephalus* Fieber, 1861

**Material examined.** Many specimens: GILAN: Gyssom, 11.-18.vi.1995; Manjil, 16.v.-4.vi.1995; Rasht, iv.-vi.1995; Sang Rud, 19.-20.viii.2002; Sang Rud – Jirandeh, 31.v.1995; Shaft, 7.v.1995; Ziba Kenar, 30.iv.1995. TEHRAN: Asara, 13.vii.2002; Gachsar, 15.vii.2002.

**Comments.** On Cyperaceae and Juncaceae in marshes and wet meadows. West-Palaeartic, extending to the Middle East and Middle Asia.

## Subfamily Blissinae

*Dimorphopterus spinolae* (Signoret, 1857)

**Material examined.** GILAN: Rasht, 4 specimens, iv.-vi.1995.

**Comments.** In sandy habitats on Poaceae, recorded e.g. on *Calamagrostis* and *Elymus*. Euro-Siberian.

## Subfamily Henestarinae

*Engistus exsanguis exsanguis* Stål, 1872

**Material examined.** Several specimens: GILAN: Dasht-e-Veel, 20.-25.viii.1998; Parudbar, 29.-30.vii.2003, 23.-26.vi.2004; Sang Rud, 19.-20.viii.2002. ZANJAN: near Gilvan, 20.-21.vii.2002; Mamalan, 12.-14.v.2001. SEMNAN: Semnan, 17.-18.vii.2003. TEHRAN: 15 km S of Firuzkuh, 2.vii.2004.

**Comments.** On halophytes such as *Zygophyllum*, *Haloxylon* and *Salsola*. Eremian, extending to the Mediterranean and Sudanese regions and western Pakistan.

***Engistus salinus* (Jakovlev, 1874)**

**Material examined.** GOLESTAN: Alagol, 5 specimens, 12.-13.vii.2003.

**Comments.** On Chenopodiaceae (*Halocnemum*) in salt marshes. Middle-Asian, known from southern Russia, Ukraine, Greece, Caucasus, Iran, Middle and Central Asia.

## Subfamily Geocorinae

***Geocoris (Geocoris) ater* (Fabricius, 1787)**

**Material examined.** GILAN: Darreh Dasht, 2 specimens, 27.v.-20.vi.1995; Deylaman, 2 specimens, 16.-20.vii.1996; Deylaman – Barasar, 1 specimen, 23.vii.1996; Rustam Abad – Salan Sar, 1 specimen, 24.vii.1996. ARDABIL: Khalkhal – Kivi, 1 specimen, 4.viii.1996; Majareh – Kolor, 1 specimen, 15.ix.1998. GOLESTAN: Inche Borun, Alagol, 1 specimen, 4.-5.vii.2004. TEHRAN: Kandovan, 3 specimens, 3.-4.vii.1995.

**Comments.** In hilly steppes. Euro-Siberian.

***Geocoris (Geocoris) desertorum* (Jakovlev, 1871)**

**Material examined.** GILAN: Jirandeh, 1 specimen, 6.-8.vii.1996; Rustam Abad – Salan Sar, 1 specimen, 24.vii.1996; Sang Rud, 1 specimen, 20.ix.1998; Sang Rud – Jirandeh, 1 specimen, 25.vi.1996.

**Comments.** In hilly meadows, recorded on plants such as *Ephedra*, *Artemisia* and *Atriplex*. Middle Asian, extending to Algeria, Egypt, Ukraine, southern Russia, Mongolia, and China.  
**New for Iran.**

***Geocoris (Geocoris) megacephalus* (Rossi, 1790)**

**Material examined.** GILAN: Ganjeh, 1 specimen, 14.v.-13.vi.1995; Jafrud near Ziba Kenar, 1 specimen, 2.-17.iii.2000; Lowshan, 2 specimens, 23.v.1995; Ziba Kenar, 3 specimens, 7.-10.vi.1995. ZANJAN: Pircham, 2 specimens, 7.-9.x.2000. GOLESTAN: Alagol, Inche Borun, 2 specimens, 4.-5.vii.2004.

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

***Geocoris (Geocoris) pallidipennis pallidipennis* (A. Costa, 1843)**

**Material examined.** GILAN: Ziba Kenar, 2 specimens, 7.-10.vi.1995, 24.viii.1998.

**Comments.** In steppes of the coastal area of the Caspian Sea. Holomediterranean, extending to Central Asia.

***Geocoris (Geocoris) phaeopterus* (Germar, 1837)**

**Material examined.** GILAN: Dasht-e-Veel, 1 specimen, 8.-9.x.2000; Parudbar, 1 specimen, 25.-26.vi.2004; Sang Rud, 1 specimen, 4.viii.1998. TEHRAN: Azad Bar, 1 specimen, 8.-10.vii.1995.

**Comments.** In fields and steppes, recorded on *Pulicaria* and *Tamarix*. Eremian, also widely distributed in Pakistan and the Sudanese subregion.



***Geocoris (Piocoris) erythrocephalus (Le Peletier & Serville, 1825)***

**Material examined.** ARDABIL: Khalkhal – Kivi, 2 specimens, 4.viii.1996. TEHRAN: Azad Bar, 4 specimens, 8.-10.vii.1995; Kandovan, several specimens, 3.-4.vii.1995.

**Comments.** In hilly steppes with Lamiaceae, Fabaceae and Boraginaceae. Holomediterranean, extending to Central Europe and the Middle East.

***Geocoris (Piocoris) luridus (Fieber, 1844)***

**Material examined.** GILAN: Lowshan, several specimens, 23.v.1995, 20.ix.1998, 17.ix.2000; Parudbar, 2 specimens, 27.-28.vi.2005. ZANJAN: near Gilvan, 7 specimens, 1.viii.2004.

**Comments.** On *Tamarix*. Eremian, extending from North Africa to the Middle East, Middle Asia, Ethiopia, and Sudan.

All specimens agree well in their morphology with the characteristics of the species. The subspecies *G. luridus marulla* Linnavuori, 1972, was described on the basis of a single female from Iran (Bampur, Kaskinjuv) (LINNAVUORI 1972: 102) and is only a colour form, as already pointed out by KERZHNER (1979: 70).

***Geocoris (Piocoris) putonianus Bergroth, 1892***

**Material examined.** GOLESTAN: Alagol, 2 specimens, 12.-13.vii.2003; Inche Borun, 1 specimen, 22.vii.2005.

**Comments.** On halophytes such as *Halocnemum* and *Salsola*. Middle Asian.

## Subfamily Artheneinae

***Artheneis hyrcanica (Kolenati, 1845)***

**Material examined.** GILAN: Lowshan, 1 specimen, 20.ix.1998. TEHRAN: Shahrestanak, 2100 m a.s.l., 1 specimen, 10.-12.vii.1995.

**Comments.** Recorded on *Salix*. Anatolian, known from Greece, Turkey, Caucasus, Iraq, Iran, and Syria.

***Artheneis intricata V. G. Putshkov, 1969***

**Material examined.** GOLESTAN: Alagol, 9 specimens, 12.-13.vii.2003; Kohkiluyeh – Samirun, 1 specimen, 11.-12.vi.2003.

**Comments.** On *Tamarix*. Middle Asian, extending from southern Russia and Ukraine to China.

***Artheneis wagneri Ribes, 1972***

**Material examined.** GILAN: Lowshan, 1 specimen, 28.v.1995; Parudbar, 2 specimens, 25.-26.vii.2004, 27.-28.vi.2005. TEHRAN: Road to Chalus, Elburs Mts., 1 specimen, 26.vii.1972, D. Gerling leg.

**Comments.** On *Tamarix*. Pontomediterranean, also known from Spain.

***Holcocranum diminutum umbrinum* Linnavuori, 1984**

**Material examined.** GILAN: Lowshan, 1 specimen, 8.vii.1996. TEHRAN: Azad Bar, 2410 m a.s.l., 2 specimens, 10.vii.1995; Karadj, 1 specimen, 12.-13.vii.2002.

**Comments.** On *Salix* and *Tamarix*. Formerly known only from Iraq. **New for Iran.**

## Subfamily Heterogastrinae

***Heterogaster artemisiae* Schilling, 1829**

**Material examined.** GILAN: Jirandeh, 3 specimens, 6.-8.vii.1996. ARDABIL: Khalkhal, 1 specimen, 30.vii.1996; Khalkhal – Kivi, 2 specimens, 22.vii.-4.viii.1996. TEHRAN: Kandovan, 1 specimen, 3.-4.vii.1995.

**Comments.** In mountain meadows on Lamiaceae, especially *Thymus*. Holomediterranean, extending to Central Europe, the Middle East, Middle Asia, and China.

***Heterogaster cathariae* (Geoffroy, 1785)**

**Material examined.** GILAN: Jirandeh, 2 specimens, 6.-8.vii.1996. TEHRAN: Azad Bar, 2410 m a.s.l., 2 specimens, 10.vii.1995; Kandovan, 2550 m a.s.l., several specimens, 3.-4.vii.1995. KHORASAN: 70 km W of Darreh Dasht, 1 specimen, 14.vi.1994.

**Comments.** In mountain meadows. Recorded from *Nepeta*, *Lycopus*, *Melissa*, and *Salvia*. Holomediterranean, extending to Central Europe, the Middle East, Middle Asia, and China.

***Heterogaster urticae* (Fabricius, 1775)**

**Material examined.** Numerous specimens: GILAN: Deylaman, 16.viii.1998; Fowman, 6.v.1996; Masuleh, 3.vii.1996; Rustam Abad – Salan Sar, 6.-8.v.2001.

**Comments.** On *Urtica*. West-Palaearctic.

***Platyplax salviae* (Schilling, 1829)**

**Material examined.** Several specimens: TEHRAN: Kandovan, 3.-4.vii.1995. KHORASAN: Khargh 70 km SW of Quchan, 1 specimen, 8.-9.vi.1994.

**Comments.** In mountain meadows on Lamiaceae such as *Salvia*, *Nepeta* and *Phlomis*. Holomediterranean, extending to Central Europe, the Middle East, Middle Asia, and China. **New for Iran.**

## Subfamily Pachygronthinae

***Cymophyes essabchana* Seidenstücker, 1953**

**Material examined.** KHORASAN: Lake Bazangan 50 km W of Sarakhs, 1 specimen, 30.vi.1994; Shams Abad 40 km SE of Kashmar, 4 specimens, 23.vi.1994.

**Comments.** In steppes and on shores of water bodies. Known from Iran, Iraq, Kuwait, Saudi Arabia, and Syria.

***Cymophyes ochroleuca* Fieber, 1870**

**Material examined.** GOLESTAN: Alagol, 2 specimens, 12.-13.vii.2003. TEHRAN: Azad Bar, 1 specimen, 8.-10.vii.1995.

**Comments.** Habitats as in the preceding species. On Poaceae such as *Aeluropus litoralis* and *Panicum turgidum*. Pontomediterranean.

## Subfamily Oxycareninae

***Auchenodes utu* Linnavuori, 1984**

**Material examined.** ZANJAN: Mamalan, 4 specimens, 12.-14.v.2001, 4.-6.vi.2002.

**Comments.** In hilly steppes. Formerly known from Iraq and Saudi Arabia. **New for Iran.**

***Camptotelus lineolatus damavandi* Hoberlandt, 1987**

**Material examined.** GILAN: Sang Rud, 1 specimen, 27.-28.vi.2005. TEHRAN: Azad Bar, 1 specimen, 8.-10.vii.1995.

**Comments.** In hilly steppes. Endemic to Iran. The nominotypical subspecies *C. lineolatus lineolatus* (Schilling, 1827) is Euro-Siberian.

***Leptodemus minutus* (Jakovlev, 1876)**

**Material examined.** Many specimens: GILAN: Dasht-e-Veel, 8.-10.iv.2000; Jirandeh, 21.-23.ix.2000; Manjil, 20.-29.ix.1998; Masuleh, 4.-5.viii.2002. ZANJAN: Abbar, 29.ix.-9.x.2000; Jilan Keshe, 9.-13.x.2000; Mamalan, 29.ix.-1.x.2000. TEHRAN: Karadj, 12.-13.vii.2002.

**Comments.** In hilly steppes under plants such as Poaceae. South Europe, the Middle East, Middle Asia, Sudan.

***Macroplox fasciata fasciata* (Herrich-Schaeffer, 1835)**

**Material examined.** GILAN: Deylaman, 1 specimen, 16.-20.vii.1996; Jirandeh, 3 specimens, 6.-8.vii.1996; 35 km E of Khalkhal, 1 specimen, 27.vii.2002; Sang Rud, 5 specimens, 30.vi.-1.vii.2003; Sang Rud – Jirandeh, 2 specimens, 31.v.1995. ZANJAN: 20-35 km E of Zanjan, 1 specimen, 13.vii.2004.

**Comments.** In hilly steppes on Cistaceae. Holomediterranean. **New for Iran.** *Macroplox fasciata blancae* Hoberlandt, 1943, has been recorded from Central and Southern Iran (Hoberlandt 1987: 23).

***Metopoplax origani* (Kolenati, 1845)**

**Material examined.** GILAN: Damashk, 2 specimens, 30.vii.-6.viii.1996; Damashk – Bareh Sar, 1 specimen, 27.vii.2002; Deylaman, 1 specimen, 16.-20.vii.1996. ARDABIL: Khalkhal, 1 specimen, 30.vii.1996; 20-30 km E of Khalkhal, 1 specimen, 1.-21.vii.1996; Majareh – Kolor, 11 specimens, 21.vii.1996; TEHRAN: Azad Bar, 4 specimens, 8.-10.vii.1995; Kandovan, 1 specimen, 3.-4.vii.1995.

**Comments.** In hilly steppes on Asteraceae, recorded from *Anthemis*, *Helichrysum* and *Matricaria*. Holomediterranean, extending to Central Europe, the Middle East and Middle Asia.

***Microplax interrupta* (Fieber, 1837)**

**Material examined.** GILAN: Ganjeh, 1 specimen, 14.v.-13.vi.1995; Lowshan, 1 specimen, 23.v.1995; Rudbar – Tutkaban, 2 specimens, 10.-12.v.2001; Rustam Abad – Salan Sar, 1 specimen, 24.vii.1996. ARDABIL: 20-30 km E of Khalkhal, 2 specimens, 1.-21.vii.1996.

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

***Microplax obscuripennis* (Kiritschenko, 1914)**

**Material examined.** TEHRAN: Azad Bar, 2 specimens, 10.vii.1995; Kandovan, several specimens, 3.-4.vii.1995.

**Comments.** In hilly steppes in the Elburz Mts. Known from Iran, Tadjikistan and China.

***Oxycarenus (Euoxycarenus) pallens* (Herrich-Schaeffer, 1850)**

**Material examined** Many specimens: GILAN: Keshi Lemir 25 km S of Astara, 8.-9.vii.2003; Lowshan, 30.vii.2003; Manjil, 16.v.-14.vi.1996, 8.-10.v.2001; Masuleh, 4.-5.viii.2002; Sang Rud, 30.vi.-1.vii.2003; Sang Rud – Jirandeh, 31.v.1995, 25.vi.1996. ARDABIL: Firuzabad, 9.viii.2002; 35 km E of Khalkhal, 27.vi.2002; Khalkhal – Kivi, 4.viii.1996, 28.-29.vii.2004. ZANJAN: Mamalan – Abbar, 20.-21.vii.2003; 20-35 km E of Zanzan, 13.vii.2004. TEHRAN: Azad Bar, 10.vii.1995; 15 km S of Firuzkuh, 2.vii.2004; Kandovan, 3.-4.vii.1995.

**Comments.** In mountain steppes on Asteraceae such as *Centaurea*. Holomediterranean, extending to Middle and Central Asia, India, and Sudan.

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

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

**Comments.** On Malvaceae such as *Abutilon*. Palaeotropical.

***Oxycarenus (Oxycarenus) lacteus* Kiritschenko, 1914**

**Material examined.** ARDABIL: 20-30 km E of Khalkhal, 1 specimen, 21.vii.1996. TEHRAN: Azad Bar, several specimens, 8.-10.vii.1995; Kandovan, several specimens, 3.-4.vii.1995. All J. Péricart det.

**Comments.** In mountain steppes. Middle Asian, known from Kirgizia, Tadjikistan, Uzbekistan, and Iran.

Subfamily Rhyparochrominae  
Tribe Plinthisini

***Plinthisus (Plinthisus) brevipennis* (Latreille, 1807)**

**Material examined.** GILAN: Lahijan, 1 specimen, 2.v.1995.

**Comments.** Among mosses on wet stones on a forested mountain slope. Central and South Europe, extending to Scandinavia, North Africa, the Middle East, and Middle Asia.

***Plinthisus (Plinthisus) marginatus* Ferrari, 1874**

**Material examined.** KHORASAN: Lotfabad, 1 specimen, 15.vi.1994.

**Comments.** Pontomediterranean.

## Tribe Drymini

*Eremocoris fenestratus* (Herrich-Schaeffer, 1839)

**Material examined.** GILAN: Darreh Dasht, 3 specimens, 27.v.-20.vi.1995, 8.-9.x.2000; Dasht-e-Veel, 1 specimen, 23.-29.vii.2002; Lowshan, 5 specimens, 18.-20.viii.2002; Manjil, 2 specimens, 15.-17.ix.2000; Parudbar, 2 specimens, 29.-30.vii.2003. TEHRAN: Evin near Tehran, many specimens, 14.-16.vii.1995; Karadj, many specimens, 12-13.vii.2002.

**Comments.** At light in gardens. Euromediterranean-Turanian.

*Eremocoris abietis fraternus* Horváth, 1883

**Material examined.** GILAN: Rasht, 1 specimen, iv.-vi.1995. TEHRAN: 5 km N of Karadj, 1 specimen, 13.-14.vii.2002.

**Comments.** In a garden. Euro-Siberian species; the subspecies is known from Georgia, Armenia, Azerbaijan, southern Russia and Ukraine (Neimorovets 2002). **New for Iran.**

*Scolopostethus decoratus* (Hahn, 1833)

**Material examined.** GILAN: Asalem forest, 6 specimens, 13.ix.1998; Sume'eh Sara, 1 specimen, 5.viii.1994. ZANJAN: 15 km NW of Gilvan, 1 specimen, 26.-27.vi.2004.

**Comments.** In deciduous forests. Euro-Siberian.

*Taphropeltus contractus* (Herrich-Schaeffer, 1835)

**Material examined.** ARDABIL: 20-30 km E Khalkhal, 1 specimen, 1.-21.vii.1996.

**Comments.** In a deciduous mountain forest. Euromediterranean. **New for Iran.**

## Tribe Antillocorini

*Tropistethus lanternae* Linnavuori, 1960

**Material examined.** GILAN: Dasht-e-Veel, many specimens, 20.-25.viii.1998, 8.-10.ix.2000; Parudbar, 1 specimen, 29.-30.vii.2005; Rustam Abad – Salan Sar, 2 specimens, 8.-10.ix.2000. ARDABIL: Ganjgeh, 1 specimen, 9.-10.viii.2002. GOLESTAN: Talulestan, 1 specimen, 15.-16.vii.2003. MAZANDARAN: Chalus, 1 specimen, 16.-17.vii.2002. KHORASAN: Lotfabad, 1 specimen, 15.vi.1994.

**Comments.** At light in gardens in hills. Pontomediterranean, extending to Middle Asia.

## Tribe Lethaeini

*Camptocera glaberrima* (Walker, 1872)

**Material examined.** Many specimens: GILAN: Dasht-e-Veel, 20.-25.viii.1998, 27.-29.vii.2002; Jirandeh, 21.-23.ix.2000; Lowshan, 18.-20.viii.2002; Manjil, 20.-26.ix.1998, 8.-10.v.2001; Parudbar, 29.-30.vii.2003, 25.-26.vii.2004; Rasht, vi.-viii.1996; Rustam Abad – Salan Sar, 8.-10.ix.2004. ARDABIL: Ganjgeh, 9.-10.viii.2002. ZANJAN: 8.-15 km W of Gilvan, 31.vii.-1.viii.2004; Jilan Keshe, 9.-10.x.2000; Mamalan, 12.-14.v.2001; Mamalan – Abbar, 20.-21.vii.2002. GOLESTAN: Gonbad Bakhsh-e-Haft, 14.-15.vii.2000; 25 km W of Gonbad-e-Qavus, 22.-23.vii.2005. TEHRAN: 10-15 km SE of Firuzkuh, 18.-19.vii.2003. SEMNAN: Kharghan 20 km N of Shahrud, 16.-17.vii.2003; Semnan, 17.-18.vii.2003, 2.-3.vii.2004.

**Comments.** At light in gardens. Palaeotropical.

***Lethaeus picipes* (Herrich-Schaeffer, 1850)**

**Material examined.** GILAN (several specimens): Dasht-e-Veel, 20.-25.viii.1998, 8.-10.ix.2000; Jirandeh, 21.-25.ix.2000; Lowshan, 18.-20.viii.2002; Manjil, 15.-17.ix.2000, 8.-10.v.2001; Parudbar, 29.-30.vii.2003, 29.-30.vii.2005; Sang Rud, 19.-20.viii.2002. ZANJAN: Abbar, 1 specimen, 29.viii.-9.x.2000. TEHRAN: Kordan, 1 specimen, 14.vii.1992.

**Comments.** At light in gardens and steppes in hills. Irano-Turanian.

Tribe Gonianotini

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

**Material examined.** GILAN: Manjil, 1 specimen, 8.-10.v.2001.

**Comments.** At light in a hilly steppe. Euromediterranean-Turanian.

***Emblethis denticollis* Horváth, 1878**

**Material examined.** GILAN: Deylaman, 5 specimens, 9.v.-24.vi.1995; Parudbar, 1 specimen, 25.-26.vi.2004; Rustam Abad – Salan Sar, 2 specimens, 24.vii.1996. TEHRAN: Evin near Tehran, 2 specimens, 14.-18.vii.1995; 10-15 km SE of Firuzkuh, 1 specimen, 18.-19.vii.2003; Karadj, 1 specimen, 12.-13.vii.2002.

**Comments.** In hilly steppes and gardens. Euromediterranean, extending to the Middle East, Middle and Central Asia, and Pakistan.

***Emblethis gracilicornis* Puton, 1883**

**Material examined.** SEMNAN: Semnan, 1 specimen, 17.-18.vii.2003.

**Comments.** In a sandy steppe close to a salt lake. Widely distributed in the Eremian subregion and extending to the Sudanese subregion.

***Emblethis griseus* (Wolff, 1802)**

**Material examined.** GILAN: Deylaman, 1 specimen, 9.v.-24.vi.1995. ARDABIL: Majareh – Kolor, 1 specimen, 15.ix.1998. ZANJAN: Abbar, 1 specimen, 29.ix.-9.x.2000. SEMNAN: Semnan, 1 specimen, 17.-18.vii.2003. KHORASAN: Anbaran 30 km W of Sarakhs, 1 specimen, 11.vii.1994.

**Comments.** In hilly steppes. Euromediterranean, extending to the Middle East and Middle Asia.

***Gonianotus galactodermus* Fieber, 1861**

**Material examined.** GILAN: Masuleh, 1 specimen, 6.-26.vii.1995.

**Comments.** In a hilly steppe. Mediterranean, extending to the Middle East, Somalia and Sudan.

***Hyalocoris pilicornis* Jakovlev, 1874**

**Material examined.** GILAN: Dasht-e-Veel, 1 specimen, 8.-10.ix.2000; Manjil, 1 specimen, 15.-17.ix.2000; Parudbar, 2 specimens, 25.-26.vi.2004. SEMNAN: Semnan, 2 specimens, 17.-18.vii.2003.

**Comments.** At light in dry hilly steppes. From southern Russia to Central Asia. Also known from Israel, Algeria, Chad, and Niger.

***Ischnopeza hirticornis* (Herrich-Schaeffer, 1850)**

**Material examined.** TEHRAN: Azad Bar, 2 specimens, 10.vii.1995.

**Comments.** In a mountain steppe. Holomediterranean-Turanian.

***Neurocladus brachioides* (Dufour, 1851)**

**Material examined.** GOLESTAN: Gonbad Bakhsh-e-Haft, 1 specimen, 14.-15.vii.2003.

**Comments.** At light in a garden in salty marshes. Holomediterranean-Turanian.

Tribe Megalonotini

***Hadrocnemis albomaculata* (Jakovlev, 1883)**

**Material examined.** KHORASAN: Mashhad, 2 specimens, 10.-13.x.1987, collector unknown.

**Comments.** Irano-Turanian.

***Lamprodema maura* (Fabricius, 1803)**

**Material examined.** Many specimens: GILAN: Dasht-e-Veel, 20.-25.viii.1998, 8.-10.ix.2000; Lowshan, 23.v.1995; Parudbar, 25.-26.vi.2004, 29.-30.vii.2005. ZANJAN: Mamalan – Abbar, 20.-21.vii.2002. MAZANDARAN: Chalus, 16.-17.vii.2002. GOLESTAN: Gonbad Bakhsh-e-Haft, 14.-15.vii.2003; Karim Eshan 35 km N of Kalaleh, 21.-22.vii.2005; Talulestan, 15.-16.vii.2003. SEMNAN: Rowyan, 16.-17.vii.2003.

**Comments.** On Chenopodiaceae and *Plantago*. At light in gardens. Euromediterranean-Turanian.

***Lasiocoris crassicornis* (Lucas, 1849)**

**Material examined.** ARDABIL: Majareh – Kolor, 1 specimen, 15.ix.1998.

**Comments.** In hilly steppes. Pontomediterranean.

***Megalonotus sabulicola* (Thomson, 1870)**

**Material examined.** GILAN: Dasht-e-Veel, 2 specimens, 20.-25.viii.1998, 27.-29.vii.2002; Parudbar, 1 specimen, 25.-26.vi.2004. ARDABIL: Khemes, 1 specimen, 7.-9.vii.2002; near Khalkhal, 1 specimen, 9.-11.viii.1998; Majareh – Kolor, 1 specimen, 15.ix.1998. GOLESTAN: Talulestan, 3 specimens, 15.-16.vii.2003.

**Comments.** In hilly steppes. Holarctic.

Tribe Rhyparochromini

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

**Material examined.** GILAN: Deylaman, 1 specimen, 18.-20.vii.1996; Rasht, 3 specimens, vi.-viii.1996, viii.-ix.1998. ARDABIL: Khalkhal, 1 specimen, 9.-11.viii.1998; Khalkhal – Kivi, 1 specimen, 22.vii.-4.viii.1996. ZANJAN: Gilan-kesh 15 km NW of Gilvan, 1 specimen, 26.-27.vi.2004; Gilvan, 1 specimen, 11.-13.x.2000; Mamalan, 2 specimens,

29.ix.-1.x.2000. MAZANDARAN: Hassan Abad near Chalus, 1 specimen, 6.-8.vii.1995. TEHRAN: Karadj, 1 specimen, 12.-13.vii.2002.

**Comments.** In hilly steppes and gardens. Euromediterranean-Turanian.

***Graptopeltus validus* (Horváth, 1875)**

**Material examined.** TEHRAN: Kordan, 1 specimen, 14.vii.2002.

**Comments.** In a mountain river valley with *Salix*, *Populus* and *Platanus* trees and dense undergrowth. Pontomediterranean, extending to Middle Asia.

***Peritrechus gracilicornis* Puton, 1877**

**Material examined.** GILAN: Dasht-e-Veel, 2 specimens, 20.-25.viii.1998, 27.-29.vii.2002; Ganjeh, 1 specimen, 15.v.-13.vi.1995; Rasht, several specimens, vi.-viii.1996, viii.-ix.1998; Sang Rud, 1 specimen, 30.vi.-1.vii.2003. ARDABIL: Majareh – Kolor, 4 specimens, 15.ix.1998. ZANJAN: Gilvan, 3 specimens, 1.-31.vii.2005. MAZANDARAN: Chalus, 2 specimens, 12.-13.vii.2003. GOLESTAN: Gilankesh 15 km NW of Gilvan, 2 specimens, 26.-27.vi.2004. TEHRAN: Azad Bar, 2 specimens, 8.-10.vii.1995; Gachsar, 1 specimen, 15.vii.2002. KHORASAN: Lotfabad, 1 specimen, 15.vi.1994.

**Comments.** In hilly steppes and gardens. Euromediterranean-Turanian.

***Peritrechus meridionalis* Puton, 1877**

**Material examined.** GILAN: Astara, 2 specimens, 8.-9.vii.2003; Darreh Dasht, 2 specimens, 27.v.-20.vi.1995; Dasht-e-Veel, 1 specimen, 27.-29.vii.2002; Jafrud, 1 specimen, 31.vii.-1.viii.2002; Parudbar, 4 specimens, 25.-26.vi.2004, 29.-31.vii.2005; Rasht, 1 specimen, vi.-viii.1995; Sang Rud, 2 specimens, 30.vi.-1.vii.2003. ZANJAN: Gilvan, 1 specimen, 1.-2.vii.2005. MAZANDARAN: Chalus, 1 specimen, 12.-13.vii.2003. GOLESTAN: Gonbad Bakhst-e-Haft, 2 specimens, 14.-15.vii.2003; 25 km W of Gonbad-e-Qavus, 1 specimen, 22.-23.vii.2005; Talulestan, 1 specimen, 15.-16.vii.2003. KHORASAN: Lotfabad, 1 specimen, 15.v.1994; Nodeh 30-40 km ESE of Bojnurd, 1 specimen, 11.vii.1994; Parvand, 2 specimens, 4.vii.1994; Sabzevar, 1 specimen, 31.v.-1.vi.1994.

**Comments.** In steppes and riverside gardens. Holomediterranean.

***Peritrechus pusillus* Horváth, 1884**

**Material examined.** KHORASAN: Lotfabad, 1 specimen, 15.vi.1994.

**Comments.** Anatolian.

***Peritrechus rhomboidalis* Puton, 1899**

**Material examined.** KHORASAN: Lotfabad, 1 specimen, 15.vi.1994.

**Comments.** Pontomediterranean-Turanian.

***Rhyparochromus pini* (Linnaeus, 1758)**

**Material examined.** TEHRAN: Azad Bar, 1 specimen, 8.-10.vii.1995.

**Comments.** In a mountain steppe. Euro-Siberian. **New for Iran.**

***Rhyparochromus sanguineus* (Douglas & Scott, 1868)**

**Material examined.** GILAN: Deylaman, 1 specimen, 18.-20.vii.1996; Rasht, 3 specimens, vi.-vii.1996, viii.-ix.1998.



**Comments.** In hilly steppes. Central and South Europe, extending to Caucasus, Turkey, Iran, Israel, and Turkmenistan.

***Rhyarochromus vulgaris* (Schilling, 1829)**

**Material examined.** GILAN: Deylaman, 3 specimens, 16.viii.1998.

**Comments.** In a hilly steppe. Central and South Europe, extending to Caucasus, Turkey, Iran, Israel, and Turkmenistan.

***Trichaphanus fuentei* (Puton, 1894)**

**Material examined.** ARDABIL: Ganjgeh, 2 specimens, 9.-10.viii.2002.

**Comments.** At light in a riverside garden. Anatolian, also known from Spain.

***Xanthochilus minusculus* (Reuter, 1885)**

**Material examined.** ARDABIL: Khalkhal, 1 specimen, 30.vii.1996; Majareh – Kolar, 2 specimens, 15.ix.1998. TEHRAN: Azad Bar, 1 specimen, 10.vii.1995; Gachsar, 1 specimen, 13.vii.2002. KHORASAN: Nodeh 30-40 km ESE of Bojnurd, 1 specimen, 11.vii.1994.

**Comments.** In mountain steppes and forests. Mediterranean-Turanian.

***Xanthochilus omissus* (Horváth, 1911)**

**Material examined.** GILAN: Darreh Dasht, 1 specimen, 27.v.-20.vi.1995; Deylaman, 1 specimen, 16.-20.vii.1996; Deylaman – Barasar, 1 specimen, 23.vii.1996; Ganjeh, 1 specimen, 14.v.-13.vi.1995; Rasht, 2 specimens, vii.-viii.1996.

**Comments.** In hilly steppes. Known from Caucasus (Armenia, Azerbaijan, Georgia) and Iran.

Tribe Myodochini

***Pachybrachius fracticollis* (Schilling, 1829)**

**Material examined.** GILAN: Lashte Nesha, 2 specimens, 30.iv.1995; Rasht, 2 specimens, vi.-viii.1996; Ziba Kenar, 1 specimen, 31.vii.-1.viii.2002.

**Comments.** In wet meadows. Recorded on Poaceae and Cyperaceae. Euro-Siberian; from North and Central Europe to West and East Siberia and Caucasus. **New for Iran.**

***Paraparomius leptoides* (Baerensprung, 1859)**

**Material examined.** Many specimens: GILAN: Jafrud, 31.vii.-1.viii.2002; Lashte Nesha, 30.iv.1995; Nasir Mahaleh, 14.-15.viii.2002; Rasht, iv.-vi.1995, vi.-viii.1996. ZANJAN: Gilvan, 1.-2.vii.2005; 8-15 km W of Gilvan, 31.vii.-1.viii.2004. GOLESTAN: Talulestan, 15.-16.vii.2003.

**Comments.** In meadows and gardens. North-Mediterranean and Pontomediterranean.

***Paromius gracilis* (Rambur, 1839)**

**Material examined.** Several specimens: GILAN: Manjil, 15.-17.ix.2000; Parudbar, 25.-26.vi.2004; Tutkabon- Rudbar, 2.viii.1998. MAZANDARAN: Chalus, 16.-17.vii.2002. GOLESTAN: Talulestan, 15.-16.vii.2003.

**Comments.** On Poaceae in gardens. Palaeotropical.

***Remaudiereana annulipes* (Baerensprung, 1859)**

**Material examined.** Many specimens: GILAN: Dasht-e-Veel, 8.-10.ix.2000, 10.-12.v.2001; Lowshan 18.-20.viii.2002; Parudbar, 25.-26.vi.2004, 29.-30.vii.2005. ZANJAN: Abbar, 29.ix.-9.x.2000; Gilvan, 30.-31.vii.2005.

**Comments.** On halophytes such as *Salsola*. Palaeotropical.

### Discussion

Of the 91 species recorded in this study, most (39 species, i.e. 42.9 %) belong to the Mediterranean element, while 27 species (24.2 %) represent the Anatolian, Caucasian, Middle-Asiatic, and Irano-Turanian elements, 16 species (17.6 %) represent Western-Palaeartic, Holo-Palaeartic, Euro-Siberian, and Holarctic elements. Seven species are Eremian and five are Palaeotropical. One species is endemic to Iran. The result is very different as compared with the Hormozgan province in south Iran north of the Persian Gulf (LINNAVUORI 2004a,b), where most species (about 45 %) belong to the Eremian element, about 19 % are Mediterranean and about 9 % Irano-Turanian. In other parts of Iran, e.g. in the Khorasan province, the number of the Eremian species is also considerably higher than in Gilan and the adjacent provinces (LINNAVUORI & MODARRES 1999).

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### References

- ALIPANAH H. & USTJUZHANIN P. 2005: An annotated list of the Pterophorinae (Oidaemaphorini and Pterophorini) of Iran (Lepidoptera: Pterophorinae). *Entomologica Fennica* **16**: 129-143.
- HEISS E. 2002: Beitrag zur Kenntnis der Wanzenfauna (Heteroptera) Irans, I. Pp. 87-97. In: GUTLEB B. & WIESER Ch. (eds): Ergebnisse einer zoologischen Exkursion in den Nordiran, 2001. Arthropoda (Lepidoptera, Trichoptera, Neuroptera, Heteroptera, Coleoptera, Opiliones, Araneae, Decapoda) und Vertebrata (Amphibia, Reptilia, Aves, Mammalia). *Carinthia II* **192/112**: 33-140.
- HOBERLANDT L. 1954: Hemiptera-Heteroptera from Iran I. *Acta Entomologica Musei Nationalis Pragae* **29**: 121-148.
- HOBERLANDT L. 1959: Hemiptera-Heteroptera from Iran II. *Acta Entomologica Musei Nationalis Pragae* **33**: 497-523.
- HOBERLANDT L. 1974: Results of the Czechoslovak-Iranian entomological expedition to Iran 1970. Introduction. *Acta Entomologica Musei Nationalis Pragae, Supplementum* **6**: 9-20 + 2 maps + 10 pls.
- HOBERLANDT L. 1981: Results of the Czechoslovak-Iranian entomological expeditions to Iran. Introduction to the second expedition 1973. *Acta Entomologica Musei Nationalis Pragae* **40**: 5-32 + 14 pls.
- HOBERLANDT L. 1983: Results of the Czechoslovak-Iranian Entomological expeditions to Iran. Introduction to the third expedition 1977. *Acta Entomologica Musei Nationalis Pragae* **41**: 5-24 + 16 pls.
- HOBERLANDT L. 1987: Results of the Czechoslovak-Iranian entomological expeditions to Iran 1970, 1973, 1977. Heteroptera, Lygaeidae, Oxycareninae. *Acta Entomologica Musei Nationalis Pragae* **42**: 11-29.
- KERZHNER I. M. 1979: Bugs of the genus *Geocoris* (Heteroptera, Lygaeidae) from the USSR and Mongolia. *Nasekomye Mongolii [Insects of Mongolia]* **6**: 47-71 (in Russian).

- LINNAUVUORI R. E. 1972: On the taxonomy of the genus *Geocoris* Fn. (Het. Lygaeidae). *Annales Entomologici Fennici* **38**: 100-106.
- LINNAUVUORI R. E. 2004a: Heteroptera of the Hormozgan province in Iran II. Nepomorpha, Gerromorpha, Lep-topodomorpha, Cimicomorpha (Nabidae, Anthocoridae, Miridae). *Acta Universitatis Carolinae Biologica* **48**: 85-98.
- LINNAUVUORI R. E. 2004b: Heteroptera of the Hormozgan province in Iran III. Cimicomorpha (Anthocoridae, Cantacaderidae, Tingidae), Pentatomorpha [sic!]. *Acta Universitatis Carolinae Biologica* **48**: 173-286.
- LINNAUVUORI R. E. 2006: Studies on the Miridae (Insecta: Heteroptera) of Gilan and the adjacent provinces in northern Iran. I. Description of new species. *Acta Universitatis Carolinae Biologica* **49** (2005): 219-243.
- LINNAUVUORI R. E. 2007a: Studies on the Miridae (Heteroptera) of Gilan and the adjacent provinces in northern Iran. II. List of species. *Acta Entomologica Musei Nationalis Pragae* **47**: 17-56.
- LINNAUVUORI R. E. 2007b: Studies on the Piesmatidae, Berytidae, Pyrrhocoridae, Stenocephalidae, Coreidae, Rhopalidae, Alydidae, Cydnidae, and Plataspidae (Heteroptera) of Gilan and the adjacent provinces in northern Iran. *Acta Entomologica Musei Nationalis Pragae* **47**: 77-91.
- LINNAUVUORI R. E. & HOSSEINI R. 2000: *Heteroptera of Guilan with remarks on species of the adjacent areas. Part 1*. Guilan University Press, Rasht, 94 pp.
- LINNAUVUORI R. E. & MODARRES M. 1999: Studies on the Heteroptera of the Khorasan province in N. E. Iran. II. Miridae. *Entomologica Fennica* **10**: 215-231.
- NEIMOROVETS V. V. 2002: Vidy roda *Eremocoris* Fieber (Heteroptera, Lygaeidae) Rossii I sopredel'nykh stran. (Species of the genus *Eremocoris* Fieber (Heteroptera, Lygaeidae) from Russia and adjacent countries). *Entomologicheskoe Obozrenie* **81**: 666-683 (in Russian, English summary).
- PÉRICART J. 2001: Family Lygaeidae Schilling, 1829 – Seed-bugs. Pp. 35-220. In: AUKEMA B. & RIEGER Ch. (eds.) 2001: *Catalogue of the Heteroptera of the Palaearctic Region. Vol. 4. Pentatomomorpha I*. The Netherlands Entomological Society, Amsterdam, xiv + 346 pp.

