

**Studies on the Piesmatidae, Berytidae, Pyrrhocoridae,
Stenocephalidae, Coreidae, Rhopalidae, Alydidae, Cydnidae,
and Plataspidae (Heteroptera) of Gilan and the adjacent
provinces in northern Iran**

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Abstract. A list of Piesmatidae (1 species), Berytidae (5 species), Pyrrhocoridae (2 species), Stenocephalidae (4 species), Coreidae (18 species), Rhopalidae (20 species), Alydidae (3 species), Cydnidae (14 species), and Plataspidae (1 species) from the Iranian province of Gilan and adjacent provinces is published. The following four species are new for Iran: *Parapiesma salsolae* (Becker, 1867) (Piesmatidae), *Chorosoma longicolle* Reuter, 1900 (Rhopalidae), *Tritomegas bicolor* (Linnaeus, 1758) (Cydnidae), and *Coptosoma scutellatum* (Geoffroy, 1785) (Plataspidae).

Key words. Heteroptera, Lygaeoidea, Coreoidea, Pentatomoidea, Pyrrhocoroidea, Iran, Gilan, faunistics, checklist, new records

Introduction

Several entomological expeditions visited Iran in the past. The most important were the Czechoslovak-Iranian expeditions in 1970, 1973 and 1977 (HOBERLANDT 1974, 1981, 1983, 1989). 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). To improve the knowledge of the true bug fauna of northern Iran, I summarize the results of investigations made with my wife, Sakineh Linnavuori, in the Gilan province and the adjacent areas in northern Iran since 1994. I also add some species found in the eastern Khorasan province. It is a follow-up of my previous papers dealing with the true bug fauna of the Gilan province (LINNAVUORI & HOSSEINI 2000, LINNAVUORI 2006, 2007a,b).

The Gilan province (Fig. 1) (36°36' – 38°27' N, 48°30' – 50°30' E, total area 14,709 km²) is located on the southern coast of the Caspian Sea and surrounded by Ardabil, Zanjan, Ghaz-

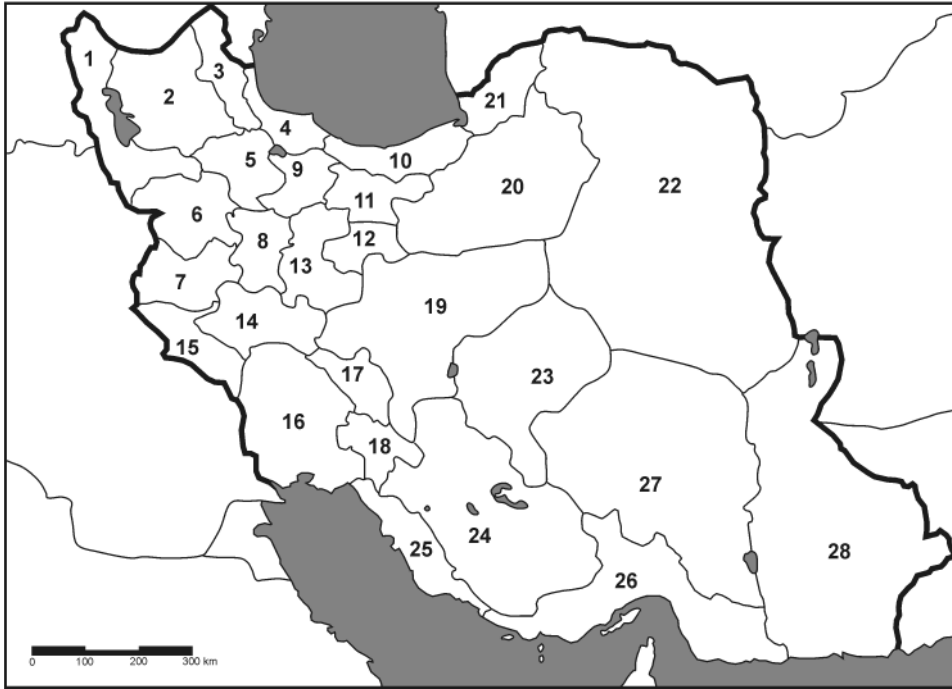


Fig. 1. Provinces of Iran. 1 – West Azerbaijan; 2 – East Azerbaijan; 3 – Ardabil; 4 – Gilan; 5 – Zanjan; 6 – Kurdistan; 7 – Kermanshah; 8 – Hamedan; 9 – Ghazvin; 10 – Mazandaran; 11 – Tehran; 12 – Qom; 13 – Markazi; 14 – Lorestan; 15 – Ilam; 16 – Khuzestan; 17 – Chaharmahal & Bakhtiari; 18 – Kohgiluyeh & 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).

vin, 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 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 Linnavuori collection and in the College of Agriculture in the Gilan University. The system and nomenclature follow AUKEMA & RIEGER (2001, 2006).

Results

LIST OF SPECIES

Superfamily Lygaeoidea Family Piesmatidae

Parapiesma salsolae (Becker, 1867)

Material examined. GILAN: Jafrud, several specimens, 31.vii.2002; near Ziba Kenar, 24.viii.1998. ZANJAN: Gilankesh, 15 km NW of Gilvan, 1 specimen, 26.-27.vi.2004.

Comments. On Chenopodiaceae (*Salsola*, *Coriospermum*) in littoral dunes and on saline soils at the seashore and banks of rivers. Euro-Siberian. **New for Iran.**

Family Berytidae
Subfamily Berytinae

Berytinus (Berytinus) hirticornis nigrolineatus (Jakovlev, 1903)

Material examined. ZANJAN: Mamalan, 1 specimen, 4.-6.vi.2002.

Comments. Recorded on Fabaceae, *Punica* and *Artemisia*. Pontomediterranean, extending to the Middle East, Middle Asia, and Yemen.

Neides afghanus Seidenstücker, 1968

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

Comments. In a hilly steppe. Irano-Turanian.

Neides brevipennis Puton, 1895

Material examined. GILAN: Jirandeh, 1 specimen, 6.-8.vii.1996; Lowshan, 8 specimens, 23.v.1995; Sang Rud - Jirandeh, 1 specimen, 31.v.1995.

Comments. In hilly steppes. Recorded on *Echium* and *Astragalus*. Syrio-Anatolian.

Neides tipularius (Linnaeus, 1758)

Material examined. GILAN: Manjil, 1 specimen, 16.v.-14.vi.1995.

Comments. In a hilly steppe. Recorded on Caryophyllaceae, Poaceae and Asteraceae. West-European, extending to the Middle East and Middle Asia.

Subfamily Metacanthinae

Metacanthus (Metacanthus) meridionalis (A. Costa, 1843)

Material examined. GILAN: Deylaman, many specimens, 16.viii.1998; Lashte Nesha, 1 specimen, 31.vii.2002; Rasht, 1 specimen, vi.-viii.1996.

Comments. In hilly steppes and gardens. On *Epilobium*. North-Mediterranean, extending to the Middle East and Middle Asia.

Superfamily Pyrrhocoroidea
Family Pyrrhocoridae

Pyrrhocoris apterus (Linnaeus, 1758)

Material examined. GILAN: Asalem forest, 1 specimen, 13.ix.1998. TEHRAN: 10-15 km SE of Firuzkuh, 1 specimen, 18.-19.vii.2003.

Comments. On the ground in forests in hills. Holarctic.

Scantius aegyptius aegyptius (Linnaeus, 1758)

Material examined. GILAN: Sang Rud, 1 specimen, 19.-20.viii.2002. ZANJAN: 8-15 km W of Gilvan, many specimens, 31.vii.-1.viii.2002.

Comments. Near Gilvan, it was very common on a ground in a site with ants a forest in hills. South Mediterranean, extending to Middle Asia and Pakistan.

Superfamily Coreoidea
Family Stenocephalidae

Dicranocephalus agilis (Scopoli, 1763)

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

Comments. On *Euphorbia* like the other species of the genus, in a hilly steppe. Holomediterranean species with a wide distribution in Central Europe, also extending to southern Russia and Middle Asia.

Dicranocephalus ferganensis (Horváth, 1887)

Material examined. GOLESTAN: Talulestan, 1 specimen, 15.-16.vii.2003.

Comments. Irano-Turanian.

Dicranocephalus setulosus (Ferrari, 1874)

Material examined. GILAN: Parudbar, 4 specimens, 25.-26.vi.2004; Sang Rud, 2 specimens, 20.ix.1998.

Comments. Holomediterranean, extending to Israel, Iraq, and Turkey.

Dicranocephalus marginatus (Ferrari, 1874)

Material examined. MAZANDARAN: Chalus, 1 specimen, 12.-13.vii.2003. GOLESTAN: Gorgan, Mian Dareh, 1 specimen, 1.-14.vii.2003; Talulestan, 1 specimen, 15.-16.vii.2003.

Comments. Irano-Turanian, extending to the Middle East and the Oriental Region.

Family Coreidae
Subfamily Coreinae

Centrocoris spiniger (Fabricius, 1803)

Material examined. GILAN: Deylaman, 1 specimen, 9.v.-24.vi.1995; Manjil, 8 specimens, 16.v.-14.vi.1995, 15.-17.ix.2000; Sang Rud, 2 specimens, 30.vi.-1.vii.2003; Tutkabon – Rudbar, 1 specimen, 2.viii.1998. ARDABIL: Firuzabad, 1 specimen, 9.viii.2002. ZANJAN: Gilvan, 3 specimens, 11.-13.x.2000.

Comments. In hilly steppes and gardens with Asteraceae, Poaceae and Chenopodiaceae. Holomediterranean, extending to the Middle East and Middle Asia.

Centrocoris variegatus Kolenati, 1845

Material examined. ZANJAN: Gilankesh, 15 km NW of Gilvan, 3 specimens, 26.-27.vi.2004; Gilvan, 1 specimen, 11.-13.x.2000.

Comments. In gardens in hills. Holomediterranean.

Centrocoris volxemi (Puton, 1878)

Material examined. ZANJAN: near Mamalan, 1 specimen, 12.-14.v.2001.

Comments. In a garden in hills. Irano-Turanian, extending from Russia to the Middle East, Middle Asia, and China.

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

Material examined. GILAN: Gyssom, 3 specimens, 30.vi.-8 vii.1996; 45-50 km E of Khalkhal, 2 specimens, 1.-21.vii.1996; Lashte Nesha, 2 specimens, 31.vii.2002; Masuleh, 5 specimens, 6.-26.vi.1995; Parudbar, 1 specimen, 25.-26.vi.2004; Rasht, 2 specimens, iv.-v.1995; Talesh Mts. SE of Masuleh, 1 specimen, 4.viii.1994; Tutkabon – Rudbar, 1 specimen, 2.viii.1998. ARDABIL: Khalkhal – Kivi, 3 specimens, 22.vii.-4.viii.1996, 9.-11.viii.1998, 8.-9.viii.2002; Kivi, 1 specimen, 9.-11.viii.2002. TEHRAN: Azad Bar, 4 specimens, 8.-10.vii.1995, 6.-7.vii.2003; Kandovan, 3 specimens, 3.-4.vii.1995; Kordan, 4 specimens, 14.vii.2002.

Comments. On Polygonaceae such as *Rumex* and *Polygonum* in forests in hills. Also recorded from some Rosaceae and Asteraceae. Holopalaeartic.

***Enoplops disciger* (Kolenati, 1845)**

Material examined. WEST AZERBAIJAN: Marangalu near Urumiyeh, 1 specimen, 15.-17.vii.2004.

Comments. In a salt marsh with *Artemisia* and *Atriplex*. Pontomediterranean.

***Gonocerus acuteangulatus* (Goeze, 1778)**

Material examined. GILAN: Lahidjan, 1 specimen, 2.v.1995; Rustam Abad – Salan Sar, 2 specimens, 6.-8.v.2001; Sang Rud, 1 specimen, 20.ix.1998; Seravan, 1 specimen, 4.-6.ix.2000.

Comments. On *Juniperus oxycedrus* in forests in hills. Holomediterranean.

***Gonocerus juniperi* Herrich-Schaeffer, 1839**

Material examined. GILAN: Lowshan, 1 specimen, 18.-20.viii.2002.

Comments. On *Juniperus oxycedrus* in a mountain forest. Holomediterranean.

***Haploprocta pustulifera* (Stål, 1860)**

Material examined. GILAN: Lowshan, 1 specimen, 18.-20.viii.2002; Parudbar, 2 specimens, 29.-30.vii.2003; Sang Rud, 7 specimens, 21.ix.2000, 19.-20.ix.2002; Tutkabon – Rudbar, 8 specimens, 15.ix.2000, 6.-8.vi.2002. KHORASAN: near Parvand 70 km W of Sabzevar, 1 specimen, 4.ix.1994; Can Chiroc, 2 specimens, 17.v.1994.

Comments. In gardens and river valleys in hills. On *Pteropyrum*. Middle and Central Asia, extending to China and Pakistan.

***Phyllomorpha lacerata* Herrich-Schaeffer, 1835**

Material examined. GILAN: Sang Rud, 1 specimen, 20.ix.1998.

Comments. In a hilly steppe. Recorded on Caryophyllaceae. Irano-Turanian, extending from Albania, Greece and Italy to the Middle East, Middle Asia, and Pakistan.

***Phyllomorpha laciniata* (Villers, 1789)**

Material examined. ARDABIL: Khalkhal – Kivi, 1 specimen, 4.viii.1996.

Comments. In a forest in hills. Recorded on Caryophyllaceae and Fabaceae. Holomediterranean, extending to Central Europe and the Middle East.

***Spathocera lobata* (Herrich-Schaeffer, 1840)**

Material examined. GILAN: Rustam Abad – Salan Sar, 1 specimen, 6.-8.v.2001. ZANJAN: Mamalan – Abbar, 1 specimen, 20.-21.vii.2002.

Comments. In hilly steppes and gardens. On Polygonaceae and Lamiaceae. Holomediterranean, extending to Central Europe and Middle Asia.

***Syromastes rhombeus* (Linnaeus, 1767)**

Material examined. GILAN: Damashk – Bareh Sar, 1 specimen, 23.vii.2002. ARDABIL: Khalkhal – Kivi, 4.viii.2002.

Comments. In hilly forests. Recorded on Caryophyllaceae such as *Arenaria*, *Cerastium*, *Dianthus*, *Silene*, *Herniaria*, and *Paronychia*. Westpalaeartic.

Subfamily Pseudophloeinae

***Coraleptus gracilicornis* (Herrich-Schaeffer, 1835)**

Material examined. GILAN: Darreh Dasht, 1 specimen, 27.v.-20.vi.1996; Masuleh, 1 specimen, 3.-27.vii.1996.

Comments. In hilly steppes. Recorded on Fabaceae and Lamiaceae. Holomediterranean, extending to Middle Asia.

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

Material examined. GILAN: Sang Rud, 1 specimen, 30.vi.-1.vii.2003. SEMNAN: Kharghan 20 km N of Shahrud, 1 specimen, 16.vi.-1.vii.2000. TEHRAN: Azad Bar, 1 specimen, 8.-10.vii.1995.

Comments. In hilly steppes and forests in hills. Recorded on *Pinus halepensis*, Lamiaceae, Malvaceae, and Fabaceae. Holomediterranean, extending to Central Europe and the Middle East.

***Coriomeris denticulatus* (Scopoli, 1763)**

Material examined. GILAN: Deylaman – Barasar, 3 specimens, 23.vii.1996. ARDABIL: near Kivi, 8 specimens, 8.vii.2002, 9.-11.viii.2002, 28.-29.vii.2004. SEMNAN: Kharghan 20 km N of Shahrud, 1 specimen, 16.-17.vii.2003.

Comments. In mountain forests, steppes and gardens. Recorded on Fabaceae, Boraginaceae, Lamiaceae, Asteraceae, etc. In western Palaeartic.

***Coriomeris hirticornis* (Fabricius, 1794)**

Material examined. GILAN: Manjil, 1 specimen, 8.-10.v.2001; Sang Rud, 1 specimen, 30.vi.-1.vii.2003; Tutkaban – Rudbar, 1 specimen, 26.v.-8.vii.1996.

Comments. In hilly steppes. Recorded on Asteraceae, Fabaceae, Poaceae, etc.

***Coriomeris pallidus* Reuter, 1900**

Material examined. GOLESTAN: Farsian, 1 specimen, 16.vii.2003.

Comments. In mountain meadows of the Elburs Mts. with *Artemisia*, *Verbascum*, *Astragalus*, etc. Middle Asia.

***Coriomeris vitticollis* Reuter, 1900**

Material examined. GILAN: Lashte Nesha, 2 specimens, 31.vii.2002; Rustam Abad – Salan Sar, 5 specimens, 24.vii.1996, 6.-8.v.2001; Tutkabon – Rudbar, 2 specimens, 2.viii.1998; Ziba Kenar, 1 specimen, 7.-10.viii.1995. GOLESTAN: Alagol, 1 specimen, 12.-13.vii.2003. SEMNAN: Kharghan 20 km N of Shahrud, 1 specimen, 16.-17.vii.2003. TEHRAN: Kordan, 1 specimen, 1.-4.vii.2002; Shahrestanak, 2 specimens, 10.-12.vii.1995.

Comments. In hilly steppes. Pontomediterranean.

Family Rhopalidae
Subfamily Rhopalinae
Tribe Corizomorphini

***Corizomorpha janowskyi* Jakovlev, 1882**

Material examined. TEHRAN: Azad Bar, 1 specimen, 8.-10.vii.1995; Kordan, 1 specimen, 14.vii.2002.

Comments. In mountain meadows. Middle Asian, extending from Turkey to Middle Asia and NW China.

Tribe Rhopalini

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

Material examined. GILAN: Dasht-e-Veel, 1 specimen, 27.-29.vii.2002; Deylaman, 1 specimen, 9.v.-24.vi.1995; Ganjeh, 1 specimen, 14.v.1995; Jafrud, 2 specimens, 31.vii.-1.viii.2002; Jirandeh, 1 specimen, 6.-8.vii.1996; Lashte Nesha, 1 specimen, 31.vii.2002; Manjil, 3 specimens, 16.v.-14.vi.1995, 15.-17.ix.2000, 8.-10.v.2001; Rustam Abad – Salan Sar, 2 specimens, 24.vii.1996, 8.-10.ix.2000; Sang Rud – Jirandeh, 3 specimens, 25.vi.1996; Sume'eh Sara, 3 specimens, 4.-5.vi.1994. ARDABIL: Khemes, 1 specimen, 7.-9.vii.2002; near Kivi, 1 specimen, 8.vii.2002. ZANJAN: Gilankesh, 15 km NW of Gilvan, 2 specimens, 26.-27.vi.2004; Gilvan, 1 specimen, 20.-21.vii.2002. MAZANDARAN: Hassan Abad, 1 specimen, 15.-16.vii.2003. GOLESTAN: Farsian, 1 specimen, 16.vii.2003; Talulestan, 1 specimen, 15.-16.vii.2003. TEHRAN: 10-15 km SE of Firuzkuh, 1 specimen, 18.-19.vii.2003.

Comments. In hilly steppes. Recorded on Brassicaceae, Fabaceae, Chenopodiaceae, and Poaceae. Holarctic.

***Corizus fenestella fenestella* Horváth, 1917**

Material examined. GILAN: Jirandeh, 1 specimen, 6.-8.vii.1996; Sang Rud, 1 specimen, 21.ix.2000. TEHRAN: Azad Bar, 3 specimens, 8.-10.vii.1995; 25 km SE of Firuzkuh, 4 specimens, 18.vii.2003; Kandovan, 7 specimens, 3.-4.vii.1995.

Comments. In mountain meadows and forests. Anatolian, known from Greece, Turkey, Caucasus, Iraq, and Iran.

***Corizus hyoscyami hyoscyami* (Linnaeus, 1758)**

Material examined. GILAN: 35 km E of Khalkhal, 1 specimen, 27.vi.1995; Lashte Nesha, 1 specimen, 31.vii.2002; Rustam Abad – Salan Sar, 1 specimen, 6.-8.v.2001; Sang Rud, 2 specimens, 30.vi.-1.vii.2003; Tutkabon – Rudbar, 1 specimen, 20.v.-28.vi.1995. ARDABIL: Kivi, 2 specimens, 9.-11.viii.2002; 5-20 km E of Kivi, 1 specimen, 8.-9.viii.2002. SEMNAN: Kharghan 20 km N of Shahrud, 1 specimen, 16.-17.vii.2003. TEHRAN: Kordan, 1 specimen, 14.vii.2002; Shahrestanak, 1 specimen, 10.-12.vii.1995.

Comments. In mountain meadows and forests on Asteraceae, Fabaceae, etc. Holopalae-arctic.

***Limacocarenum curtulus* Kiritshenko, 1914**

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

Comments. In a mountain steppe. Middle Asiatic.

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

Material examined. Numerous specimens: GILAN: 10 km W of Asalem, 5.-7.vii.2002; Damashk – Bareh Sar, 27.vii.2002; Darreh Dasht, 18.-21.viii.1998; Dasht-e-Veel, 20.-25.viii.1998; Deylaman, 9.v.-24.vi.1995, 16.-23.vii.1996; Ganjeh, 14.v.-13.vi.1995; Gyssom, 30.vi.-2.vii.1996; Jirandeh, 21.-23.ix.2000; 35-50 km E of Khalkhal, 27.vi.1995, 1.-21.vii.1996, 23.vi.2002; Lashte Nesha, 31.vii.2002; Lowshan, 17.ix.2000, 30.viii.2003; Manjil, 16.v.-14.vi.1995, 20.-26.ix.1998; Masuleh, 3.-28.vii.1996; Parudbar, 29.-30.vii.2003, 25.-26.vi.2004; Rasht, ix.2000; Rustam Abad – Salan Sar, 26.vi.1996, 8.-10.ix.2000; Sang Rud, 21.ix.2000, 19.-20.viii.2002, 30.vi.-1.vii.2003; Seravan, 4.-6.ix.2001; Shaft, 7.v.1995; Tutkabar – Rudbar, 26.v.-8.vii.1996, 7.x.2000. ARDABIL: Firuzabad, 9.viii.2002; near Khalkhal, 21.-30.vii.1996, 9.-11.viii.1998, 8.vii.-9.viii.2002; Khemes, 7.-9.vii.2002; near Kivi, 8.vii.-9.viii.2002, 28.-29.vii.2004; Majareh – Khalkhal, 22.vii.1996; Majareh – Kolar, 21.vii.1996. ZANJAN: Abbar, 29.ix.-9.x.2000; Gilankesh, 15 km NW of Gilvan, 26.-27.vi.2004; Gilvan, 29.ix.2000, 11.-13.x.2000, 20.-21.vii.2002, 1.-2.vii.2005; Calvin, 1.x.2000; Mamalan, 29.ix.-1.x.2000, 12.-14.v.2001; Mamalan – Abbar, 20.-21.vii.2002; Pircham, 7.-9.x.2000. MAZANDARAN: Chalus, 16.-17.vii.2002, 12.-13.vii.2003; Hassan Abad, 15.-16.vii.2002. GOLESTAN: Alagol, 12.-13.vii.2003; Farsian, 16.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: 15 km S of Firuzkuh, 2.vii.2004; 25 km SE of Firuzkuh, 18.vii.2003; Ghule Safid, 12.-13.vi.2002; Kandovan, 3.-4.vii.1995; Karadj, 12.-13.vii.2002; Kordan, 14.vii.2002; Shahrestanak, 10.-12.vii.1995. SEMNAN: 25-30 km N of Shahrud, 4.vii.2004.

Comments. In steppes on Poaceae, Asteraceae, Geraniaceae, and Hypericaceae. Cosmopolitan.

***Maccevethus errans caucasicus* (Kolenati, 1787)**

Material studied. GILAN: Lowshan, 2 specimens, 30.vii.2003; Manjil, 2 specimens, 8.-10.v.2001; Masuleh, 1 specimen, 4.-5.viii.2002; Parudbar, 1 specimen, 29.-30.vii.2003; Sang Rud, 1 specimen, 19.-20.viii.2002. ARDABIL: near Khalkhal, 1 specimen, 9.-11.viii.1998; 5-20 km E of Kivi, 1 specimen, 8.-9.viii.2002. TEHRAN: Azad Bar, 2 specimens, 8.-10.vii.1995; 15 km S of Firuzkuh, 1 specimen, 2.vii.2004; Gachsar, 1 specimen, 15.vii.2002; Kordan, 1 specimen, 14.vii.2002; Shahrestanak, 1 specimen, 10.-12.vii.1995. SEMNAN: Kharghan 20 km N of Shahrud, 1 specimen, 16.-17.vii.2004; Shahrud, Rowyan, 3 specimens, 16.-17.vii.2003, 1.-4.vii.2004.

Comments. In hilly steppes and forests with Asteraceae. Pontomediterranean.

***Rhopalus (Rhopalus) distinctus* (Signoret, 1853)**

Material examined. TEHRAN: Azad Bar, 2 specimens, 8.-10.vii.1995; Kandovan, 3 specimens, 3.-4.vii.1995.

Comments. In mountain meadows. Euro-Mediterranean, extending to Central Europe, the Middle East, and Middle Asia.

***Rhopalus (Rhopalus) lepidus* Fieber, 1861**

Material examined. GILAN: Deylaman, 1 specimen, 16.-20.vii.1994.

Comments. In mountain meadows. Euro-Mediterranean, extending to NW Africa, Turkey, Caucasus, Iran, and Middle Asia.

***Rhopalus (Rhopalus) parumpunctatus* Schilling, 1829**

Material examined. Many specimens: GILAN: Damashk – Bareh Sar, 27.vii.2002; Deylaman, 16.viii.1998; Jirandeh, 6.-8.vii.1996; Manjil, 16.v.-14.vi.1995; Rustam Abad – Salan Sar, 24.vii.1996; Sang Rud, 30.vi.-1.vii.2003; Sang

Rud – Jirandeh, 31.v.1995. ARDABIL: 20-30 km E of Khalkhal, 21.vii.1996; Khalkhal – Kivi, 21.vii.-4.viii.1996; near Kivi, 8.vi.2002, 9.-11.viii.2003; Majareh – Khalkhal, 22.vii.1996. ZANJAN: Gilvan, 11.-13.x.2000; 20-35 km E of Zanjan, 13.viii.2004. GOLESTAN: Farsian, 16.vii.2003; Gorgan Mian Dareh, 13.-14.vii.2003. TEHRAN: 15 km S of Firuzkuh, 2.iii.2004; Kordan, 14.vii.2002. SEMNAN: Kharghan 20 km N of Shahrud, 16.-17.vii.2003; 25-30 km N of Shahrud, 4.vii.2004; Shahrud, Rowyan, 3.-4.vii.2004.

Comments. In hilly steppes like the other species of the genus. Holopalaeartic.

Rhopalus (Rhopalus) subrufus (Gmelin, 1790)

Material examined. Many specimens: GILAN: Darreh Dasht, 3 specimens, 26.v.-20.vi.1995; Gyssom, 3 specimens, 11.-16.vi.1995; Lahijan, 4 specimens, 2.v.1995; Rasht, 4 specimens, 4.-6.vi.1995; Ziba Kenar, 1 specimen, 7.-10.vi.1995. ARDABIL: 20-30 km E of Khalkhal, 1 specimen, 1.-21.viii.1996.

Comments. In hilly steppes on Lamiaceae, Fabaceae, Asteraceae, etc. Westpalaeartic.

Stictopleurus abutilon (Rossi, 1790)

Material examined. KHORASAN: Khalkanlod 30 km E of Quchan, 1 specimen, 7.vi.1994.

Comments. In mountain meadows. Euro-Siberian.

Stictopleurus pictus (Fieber, 1861)

Material examined. Many specimens: GILAN: Damashk – Bareh Sar, 27.vii.2002; Deylaman, 9.v.-24.vi.1995; Jirandeh, 26.-27.vii.2002; Lowshan, 18.-20.viii.2002; Manjil, 14.v.-14.vi.1995, 26.viii.1996; Parudbar, 29.-30.vii.2003; Sang Rud, 19.-20.viii.2002, 29.-30.vii.2003. ARDABIL: near Khalkhal, 9.-11.viii.1998, 8.-9.vii.2002; Khalkhal – Kivi, 4.viii.1996, 8.-9.viii.2002. ZANJAN: Gilankesh, 15 km NW of Gilvan, 26.-27.vi.2004; Mamalan – Abbar, 20.-21.vii.2002; 20-35 km E of Zanjan, 13.vii.2004. SEMNAN: Kharghan 20 km N of Shahrud, 16.-17.vii.2003; Pircham, 7.-9.x.2000; 25-30 km N of Shahrud, 4.vii.2004; Shahrud, Rowyan, 3.-4.vii.2004. GOLESTAN: Alagol, 12.-13.vii.2003; Gonbad Bakhst-e-Haft, 14.-15.vii.2003; near Maraveh, 21.vii.2005. TEHRAN: Gachsar, 15.vii.2002; Kordan, 14.vii.2002.

Comments. In hilly meadows, forests and gardens. Recorded on Asteraceae, Lamiaceae, and Brassicaceae. Holomediterranean, extending to Central Europe and the Middle East.

Stictopleurus punctatonervosus (Goeze, 1778)

Material examined. GILAN: Gyssom, 1 specimen, 11.-18.vi.1995. ARDABIL: 20-30 km E of Khalkhal, 1 specimen, 1.-21.vii.1996.

Comments. In mountain meadows, e.g. on Asteraceae. Euro-Siberian.

Stictopleurus subtomentosus (Rey, 1888)

Material studied. GILAN: Rustam Abad, 1 specimen, 13.v.1995. GOLESTAN: Inche Borun, 1 specimen, 22.vii.2005. KHORASAN: Khalkanlod 30 km E of Quchan, 2 specimens, 7.vi.1994.

Comments. In Golestan on a shore of a little salt lake, with growths of *Alhagi* and *Tamarix*. Holomediterranean.

Tribe Chorosomatini

Agraphopus lethierryi Stål, 1872

Material studied. GILAN: Manjil, 4 specimens, 15.-17.ix.2000. ARDABIL: Firuzabad, 1 specimen, 9.viii.2002.

Comments. On *Cynodon dactylon* in steppes. Holomediterranean, extending widely to Africa and India.

***Agraphopus suturalis* Reuter, 1900**

Material studied. GILAN: Parudbar, 3 specimens, 25.-26.vi.2004.

Comments. In dry steppes on *Panicum turgidum*. Eremian, extending to the Middle East, Middle Asia, and Sudan.

***Chorosoma longicolle* Reuter, 1900**

Material studied. KHORASAN: near Parvand, 8 specimens, 31.v.-14.vii.1994.

Comments. In dunes on *Stipagrostis* sp. Middle Asian, known from Kazakhstan, Tadzhikistan, Turkmenistan, and Uzbekistan. Incorrectly mentioned as *C. gracile* Josifov, 1968, in LINNAVUORI & MODARRES (1998: 241). **New for Iran.**

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

Material studied. GILAN: Darreh Dasht, many specimens, 27.v.-20.vi.1995; Jirandeh, 6.-8.vii.1996; Lowshan, 23.v.-8.vii.1996; Manjil, 16.v.-14.vi.1995, 22.ix.1998, 15.vii.-17.ix.2000, 8.-10.v.2001; Rudbar – Tutkabon, 1.-12.v.2001; Rustam Abad – Salan Sar, 24.vii.1996, 6.-8.v.2001; Sang Rud, 30.vi.-1.vii.2003; Sang Rud – Jirandeh, 3.v.1995, 25.vi.1996. ARDABIL: 20-30 km E of Khalkhal, 2 specimens, 21.vii.1996; near Kivi, 2 specimens, 8.vii.2002. ZANJAN: Mamalan – Abbar, 2 specimens, 20.-21.vii.2002.

Comments. On Poaceae in steppes and forests in hills. Western Palearctic.

***Leptoceraea femoralis* (Horváth, 1897)**

Material studied. GOLESTAN: Alagol, 1 specimen, 12.-13.vii.2003.

Comments. In wet marshes on *Aeluropus littoralis*. Irano-Mediterranean, extending to France, Spain, Greece, Egypt, Tunisia, and Saudi Arabia.

Family Alydidae
Subfamily Alydinae***Camptopus bifasciatus* Fieber, 1864**

Material studied. GILAN: Manjil, 1 specimen, 16.v.-4.vi.1995; Sang Rud, 1 specimen, 19.-20.viii.2002.

Comments. In hilly steppes and gardens. Anatolian, known from Armenia, Azerbaijan, Turkey, and Iran.

***Camptopus lateralis* (Germar, 1817)**

Material studied. Many specimens: GILAN: Darreh Dasht, 29.v.-20.vi.1995; Deylaman, 10.-20.vii.1996; Jirandeh, 26.-27.vii.2002; Lowshan, 17.ix.2000; Manjil, 26.vi.1996; Masuleh, 3.vii.1996, 4.-5.viii.2002; Parudbar, 29.-30.vii.2003, 27.-28.vi.2005; Tutkabon – Rudbar, 26.v.-8.vii.1996. ARDABIL: Firuzabad, 5.viii.2002, 22.vii.2004; near Khalkhal, 9.-11.viii.1998; Khalkhal – Kivi, 22.vii.-4.viii.1996; near Kivi, 8.vii.-11.viii.2002; Rowyan, 16.-17.vii.2003. ZANJAN: near Gilvan, 20.-21.vii.2002; Mamalan – Abbar, 20.-21.vii.2002; 20-25 km E of Zanzan, 13.vii.2004. MAZANDARAN: Chalus, 12.-13.vii.2003; Hassan Abad, 15.-16.vii.2002. GOLESTAN: Alagol, 12.-13.vii.2003; Gilankesh, 15 km NW of Gilvan, 26.-27.vi.2004; 25 km W of Gonbad-e-Qavus, 22.-23.vii.2003; Inche Borun, Alagol, 4.-5.vii.2004; near Maraveh, 21.vii.2005. TEHRAN: Azad Bar, 8.-10.vii.1995; Kordan, 1.-4.vii.2002. SEMNAN: Kharghan 20 km W of Shahrud, 16.-17.vii.2003; Shahrud – Rowyan, 3.-4.vii.2004.

Comments. In hilly steppes and forests. In Golestan also in wet and salty meadows. Occurring e.g. on Fabaceae and Asteraceae. Holomediterranean, extending to Central Europe, the Middle East, Middle Asia, and the Oriental region.

***Camptopus tragacanthae* (Kolenati, 1845)**

Material studied. GILAN: Manjil, 1 specimen, 8.-10.v.2001. ARDABIL: Khalkhal – Kivi, 1 specimen, 4.viii.1996. TEHRAN: Kandovan, 1 specimen, 3.-4.vii.1995.

Comments. In mountain meadows. Irano-Turanian, also known from China.

Superfamily Pentatomoidea**Family Cydnidae****Subfamily Amnestinae*****Amnestus raunoi* J. A. Lis, 1998**

Material studied. GILAN: Sume-eh Sara, ♂ holotype, 2 paratypes, 4.-5.viii.1994; Anzali, 4 specimens, 30.viii.-1.ix.1998; Dasht-e-Veel, 2 specimens, 20.-25.viii.1998; Rasht, numerous specimens, iv.-vi.1995, vi.-viii.1996, viii.-ix.1998, ix.2000; Seravan, several specimens, 4.-6.ix.2000.

Comments. At light in gardens, near rice fields and in deciduous mountain forests. Endemic. A very unique find, since the genus *Amnestus* Dallas, 1851, has been known only from the New World, except for one uncertain species – *A. pusio* (Stål, 1860) – from Madagascar (see LIS 1998).

Subfamily Cydninae***Byrsinus laeviceps* (Kerzhner, 1972)**

Material studied: KHORASAN: Parvand 75 km W of Sabzevar, 2 specimens, 3.vii.1994.

Comments. At light in a sandy steppe. Middle Asian, known from Kazakhstan, Iran, Turkmenistan, Uzbekistan, Mongolia, and China.

***Byrsinus pilosulus* (Klug, 1845)**

Material studied. GILAN: Parudbar, 7 specimens, 29.-30.vii.2003, 29.-30.vii.2005. ZANJAN: Gilvan, 3 specimens, 30.-31.vii.2005. KHORASAN: Tabas, 2 specimens, 16.-18.v.1994; 15-25 km N of Tabas, 1 specimen, 14.-15.v.1994.

Comments. At light in gardens and hilly forests. Holomediterranean, extending to Middle Asia, Pakistan, India, and Sudan.

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

Material studied. MAZANDARAN: Amol, 1 specimen, vi.2006; Behshar, 1 specimen, 9.ii.2005; Chalus, 1 specimen, vii.2005, H.Ghahari leg.

Comments. At Gamol in a rice field. European, widely distributed in the Middle East, Middle Asia, and the Oriental region.

***Macroscythus brunneus* (Fabricius, 1803)**

Material studied. Several specimens: GILAN: Parudbar, 29.-30.vii.2003, 25.-26.vii.2004; Rustam Abad – Salan Sar, 6.-8.v.2001; Sang Rud, 19.-20.viii.2002. ZANJAN: 8-15 km W of Gilvan, 31.vii.-1.viii.2004; Jilan Keshe, 9.-13.x.2000; Mamalan – Abbar, 20.-21.vii.2002. TEHRAN: Karadj, 12.-13.vii.2002. KHORASAN: Feyzabad, 10.v.1996; near Kashmar, 22.-23.vi.1994; Lotfabad, 15.vi.1994; Mashhad, vi.-vii.1994.

Comments. At light in gardens, hilly steppes and forests. Holomediterranean, with a wide distribution in Middle Asia and the Ethiopian and Oriental regions.

Subfamily Sehirinae
Tribe Amaurocorini

***Amaurocoris curtus* (Brullé, 1838)**

Material studied. KHORASAN: 25 km N of Tabas, 1 specimen, 17.v.1996.

Comments. At light in a steppe. Eremian, extending to the Middle East, Middle Asia, Pakistan, and tropical Africa.

***Linospa candida* (Horváth, 1889)**

Material studied. KHORASAN: Parvand 75 km W of Sabzevar, several specimens, 31.v.-1.vi.1994, 4.vii.1994.

Comments. At light in a sandy steppe. Middle Asian, known from Kazakhstan, Iran, Turkmenistan, Uzbekistan, and Afghanistan.

Tribe Sehirini

***Canthophorus melanopterus melanopterus* (Herrich-Schaeffer, 1831)**

Material studied. GILAN: Deylaman, 3 specimens, 16.-20.vii.1996. ARDABIL: Firuzabad, 1 specimen, 9.viii.2002; near Kivi, 6 specimens, 8.vii.2002. GOLESTAN: near Maraveh, 1 specimen, 21.vii.2005.

Comments. In hilly steppes. Recorded on *Thesium* sp. Western Palearctic.

***Legnotus limbosus* (Geoffroy, 1785)**

Material studied. KHORASAN: 30-40 km ESE of Bojnurd, 1 specimen, 11.vii.1994.

Comments. At light in a hilly steppe. Western Palearctic, extending to the Middle East and Middle Asia.

***Ochetostethus heissi* Magnien, 2006**

Material studied. GILAN: Ganjeh, one ♂ paratype, 4 specimens, 14.v.-13.vi.1995; Lowshan, one ♂ paratype, 10 specimens, 23.v.1995; Manjil, 2 specimens, 16.v.-14.vi.1995. ZANJAN: Gilvan, 1 specimen, 20.-21.vii.2002.

Comments. In hilly forests. Known from Bulgaria, NE Greece, Cyprus, Turkey, Israel, and Iran (MAGNIEN 2006).

***Ochetostethus opacus* (Scholtz, 1847)**

Material studied. GILAN: Sang Rud, 1 specimen, 10.vii.1995. TEHRAN: Azad Bar, 4 specimens, 8.-10.vii.1995.

Comments. In hilly forests. Euro-Siberian.

***Sehirus morio* (Linnaeus, 1761)**

Material studied. ARDABIL: 10 km W of Kivi, 1 specimen, 8.vii.2002.

Comments. In a hilly forest. Euro-Siberian.

***Tritomegas bicolor* (Linnaeus, 1758)**

Material studied. GILAN: Lahijan, 1 specimen, 2.v.1995.

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

***Tritomegas sexmaculatus* (Rambur, 1839)**

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

Comments. In a hilly steppe. Euro-Mediterranean, extending to Central Europe, Turkey, Caucasus, and Iran.

Family Plataspidae***Coptosoma scutellatum* (Geoffroy, 1785)**

Material studied. GILAN: Darreh – Dasht, 2 specimens, 27.v.-20.vi.1995; Deylaman – Barasar, 4 specimens, 20.vii.1996; Masuleh, 1 specimen, 4.-5.viii.2002. KHORASAN: Golestan Park 150 km W of Bojnurd, 5 specimens, 14.vii.1994.

Comments. In steppes and hilly forests. Recorded on plants such as *Coronilla*, *Lathyrus*, and *Astragalus*. Euro-Siberian. **New for Iran.**

Discussion

Of the 68 species listed, most species (27, i.e. 40.3 %) belong to the Mediterranean element, while 21 species (29.9 %) represent western Palaearctic, Holo-Palaearctic, Euro-Siberian, and Holarctic elements, and 16 species (23.8 %) represent Anatolian, Middle-Asiatic and Irano-Turanian elements. Two species are Eremian and one cosmopolitan. One species is endemic. 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 %) are Eremian, about 19 % are Mediterranean and 9 % Irano-Turanian. In other parts of Iran, the number of Eremian species is also considerably higher than in Gilan and adjacent provinces.

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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.
- 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.
- AUKEMA B. & RIEGER Ch. (eds.) 2006: *Catalogue of the Heteroptera of the Palaearctic Region. Vol. 4. Pentatomomorpha II*. The Netherlands Entomological Society, Amsterdam, xiii + 550 pp.
- 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 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. *Acta Entomologica Musei Nationalis Pragae* **29**: 121-148.
- HOBERLANDT L. 1959: Hemiptera-Heteroptera 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. 1989: Results of the Czechoslovak-Iranian entomological expeditions to Iran 1970, 1973 and 1977. Heteroptera, Coreidae. *Sborník Národního Muzea v Praze, B* **45**: 73-89.
- LINNAVUORI 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.
- LINNAVUORI R. E. 2004b: Heteroptera of the Hormozgan province in Iran III. Cimicomorpha (Anthocoridae, Cantacaderidae, Tingidae), Pentatomorpha [sic!]. *Acta Universitatis Carolinae Biologica* **48**: 173-186.
- LINNAVUORI 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.
- LINNAVUORI 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.
- LINNAVUORI R. E. 2007b: Studies on the Lygaeidae s. lat. (Heteroptera) of Gilan and the adjacent provinces in northern Iran. *Acta Entomologica Musei Nationalis Pragae* **47**: 57-75.
- LINNAVUORI R. E. & HOSSEINI R. 2000: *Heteroptera of Guilan with remarks on species of the adjacent areas. Part I*. Guilan University Press, Rasht, 94 pp.
- LIS J. A 1998: *Amnestus raunoi* n. sp. from Iran, the first Old World representative of the New World subfamily Amnestinae (Hemiptera: Heteroptera: Cydnidae). *Entomologica Fennica* **9**: 5-7.
- MAGNIEN Ph. 2006: A new species from the Near East for the genus *Ochetostethus* Fieber 1860 (Heteroptera, Cydnidae). Pp. 513-516. In: RABITSCH W. (ed.): Hug the bug – For love of true bugs. Festschrift zum 70. Geburtstag von Ernst Heiss. *Denisia* **19**: 1-1184.

