

Studies on the Miridae (Heteroptera) of Gilan and the adjacent provinces in northern Iran.

II. List of species

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Abstract. A list of 204 species of the Miridae from Gilan and the adjacent provinces of Iran is provided. The following 58 species are new for Iran: *Adelphocoris vandalicus* (Rossi, 1790), *Anapus freyi* (Fieber, 1864), *Atractotomus mali* (Meyer-Dür, 1843), *Blepharidopterus angulatus* (Fallén, 1807), *Brachycoleus caucasicus* (Poppius, 1912), *Camptotylus liniae* (Puton, 1881), *Campylomma annulicorne* (Signoret, 1865), *Compsidolon (Apsinthophylus) absinthii* (Scott, 1870), *C. (A.) nanno* Linnavuori, 1971, *Deraeocoris (Deraeocoris) rutilus* (Herrich-Schaeffer, 1839), *D. (D.) trifasciatus* (Linnaeus, 1767), *Ectagela aspera* Linnavuori, 1984, *Ephippiocoris lunatus* Poppius, 1912, *Eumecotarsus milidius* Seidenstücker, 1980, *Europiella albipennis* (Fallén, 1829), *E. alpina* (Reuter, 1875), *E. artemisiae* (Becker, 1864), *E. nigrocunealis* (V. G. Putshkov, 1975), *Euryopicoris nitidus* (Meyer-Dür, 1843), *Excentricus planicornis* (Herrich-Schaeffer, 1836), *Globiceps (Globiceps) coryli* V. G. Putshkov, 1970, *G. (G.) sphaegiformis* (Rossi, 1790), *G. (Kelidocoris) fulvicollis* Jakovlev, 1877, *Halticus apterus apterus* (Linnaeus, 1758), *H. darbandikhanus* Linnavuori, 1984, *H. macrocephalus* Fieber, 1858, *Lepidargyrus putshkovi* Drapolyuk, 1993, *Leptopterna putshkovi* Vinokurov, 1982, *Macrotylus (Alloeonycha) horvathi* (Reuter, 1876), *M. (Macrotylus) talhouki* Wagner, 1976, *Megacoelum infusum* (Herrich-Schaeffer, 1839), *M. pistaciae* V. G. Putshkov, 1976, *Nanopsallus carduellus* (Horváth, 1888), *Oncotylus (Oncotylus) nigdensis* Linnavuori, 1961, *O. (O.) viridiflavus longipes* Wagner, 1954, *Orthocephalus fulvipes* Reuter, 1904, *O. parvulus* Reuter, 1891, *O. saltator* (Hahn, 1835), *O. vittipennis* (Herrich-Schaeffer, 1835), *Orthonotus kiritshenkoi* Josifov, 1964, *Orthops (Orthops) basalis* (A. Costa, 1853), *Orthotylus (Orthotylus) marginalis* Reuter, 1883, *O. (O.) nassatus* (Fabricius, 1787), *O. (O.) populi* Drapolyuk, 1991, *Phytocoris (Ktenocoris) ulmi* (Linnaeus, 1758), *Pilophorus cinnamopterus* (Kirschbaum, 1856), *P. perplexus* (Douglas & Scott, 1875), *Pinalitus cervinus* (Herrich-Schaeffer, 1841), *Plagiognathus (Plagiognathus) zuvandiensis* V. G. Putshkov, 1978, *P. (Zophocnemis) bicolor* (Jakovlev, 1880), *Psallus (Mesopsallus) ambiguus* (Fallén, 1807), *P. (Psallus) cruentatus* (Mulsant & Rey, 1852), *P. (P.) gidajatovi* Drapolyuk, 1987, *P. (P.) salicis* (Kirschbaum, 1856), *P. (P.) varians va-*

rians (Herrich-Schaeffer, 1841), *Salicarus urnammu* Linnavuori, 1984, *Strongylocoris niger* (Herrich-Schaeffer, 1835), and *Thermocoris rivalis rivalis* (Horváth, 1894). The first record of *Compsidolon (Apsinthophylus) nanno* from Jordan is added. One new synonymy is established: *Zanchius breviceps* (Wagner, 1951) = *Z. iranicus* Zheng & Liu, 1993, syn. nov.

Key words. Heteroptera, Miridae, *Zanchius*, Iran, Gilan, Jordan, faunistics, checklist, new records, new synonym

Introduction

This paper is part of a series dealing with the true bug fauna of the Gilan province in northern Iran (LINNAVUORI & HOSSEINI 2000, LINNAVUORI 2006, 2007a,b). It is based on investigations I made 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 km²) is located on the southern coast of the Caspian Sea and surrounded by the Ardabil, Zanjan, Ghazvin, Tehran, Mazandaran, and Golestan provinces. Some species found in the eastern Khorasan province also have been added. 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 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*,