

A PRELIMINARY LIST OF HETEROPTERA COLLECTED IN MARDIN AND SIIRT PROVINCES FROM SOUTH- EASTERN ANATOLIA OF TURKEY (HEMIPTERA)

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ABSTRACT: Fifty eight species and subspecies of Hemiptera, Heteroptera are recorded from Mardin and Siirt provinces. Specimens were collected by light trap in Pistachio and Cherry orchards during July and August 2009. The species belong to 50 genera and 11 families. The two best represented families are Miridae and Lygaeidae (respectively 16 genera and 27 genera). No species appears to be pest for agriculture, but surprisingly no representative of Pentatomidae, Scutelleridae or Tingidae were captured by the light trap. Eight species and subspecies (seven mirids and one reduviid) are newly reported for Turkey.

KEY WORDS: Hemiptera, Heteroptera, fauna, Southeastern Anatolia, Turkey.

Heteroptera species of the Southeastern Turkey are still poorly known and, as far as we know, no faunistic list exists until now for the suborder for this part of Turkey. Nevertheless some data exist. Puton (1892) and Puton & Noulhier (1895) were probably the first to bring important information most concerning the Eastern mediterranean region: they gave a list of more than 200 heteropteran species and subspecies collected in Akbez, in “Amanos Mountains (North of Syria)”, a locality now in Turkey (Hatay province). Other interesting data can be found in Horvath (1901), and other publications, these ones being summarized and taken into account by Hoberlandt (1955) in his list of the terrestrial Heteroptera of Turkey (862 reported species). Wagner (1959) also investigated Heteroptera fauna in Southeastern Anatolia (51 species), mainly around Diyarbakır province. Later, several papers were published given additional data on the Eastern mediterranean region: Lodos et al. (1998), Lodos & Önder (1978, 1979, 1980, 1982, 1983) on the pentatomoid fauna. The more recent papers concerning Southeastern Turkey are: Çınar et al. (2004) on Tingidae (2), Anthocoridae (1) and Reduviidae (1); Özgen et al. (2005) on Tingid species.

Finally, in their “Catalogue of Turkey”, Önder et al. (2006) listed a total of 1526 heteropteran species/subspecies for the whole Turkey, in which they have included southeastern species.

True bugs specimens were recently collected around Mardin and Siirt country (Southeastern Turkey), in three localities. A first list of the collected Heteroptera is given in the present paper, with preliminary comments. Further investigations are currently made and will complete the present list, with the aim to better know heteropteran fauna in the region, mainly in Diyarbakır, Elazığ and Mardin.

MATERIAL AND METHODS

Prospected localities

Locality I: Siirt (Merkez), alt. 896 m, in Pistachio orchard. The trees were 15 years old and each prospected parcels covered an area of 15 acres. In this orchard there was also vineyard agro-ecosystem. Siirt (Merkez) area is located near the Botan river (approximately 4 kilometers).

Locality II: Siirt (Aydnlar) , alt. 860 m, in Pistachio orchard. The trees were 15 years old and each prospected parcels covered an area of 15 acres.

Locality III: Mardin (Ömerli), alt. 920 m, in Cherry orchard. The trees were 5 years old and each prospected area covered an area of 10 acres. In the vicinity grow *Quercus* trees.

Specimens were collected by the second author and identified by the first author.

Methods and date of capture

Collections were made by light traps, between the 1th-VII and the 1th-IX-2009. DDVP insecticid was added in the traps. Contents of the trap were collected each week. Specimens were kept in dry condition.

Identification

Identifications were made with the several handbooks and publications concerning palaearctic heteropteran fauna (mainly: Stichel, 1933-1958; Wagner, 1974a, 1974b, 1975; Wagner & Weber, 1964, 1978; Pericart, 1999; Heiss & Pericart, 2007; Moulet, 1995; Putshkov & Moulet, 2009; Linnavuori, 1972, 1984, 2006).

Specimens are preserved in Dicle University (I. Özgen) in Diyarbakır and for a small part in the A. Matocq collection (Paris).

Species are listed below following the classification adopted in the five volumes of the *Catalogue of the Heteroptera of the Palaearctic Region* (Aukema & Rieger (eds) 1995, 1996, 1999, 2001, 2006).

Roman numerals (I, II, III) refer to the above three localities.

The species marked by an asterisc “*” are not mentioned in the catalogue of Önder et al. (2006).

RESULTS

NEPOMORPHA

Family **CORIXIDAE** Leach, 1815

Subfamily Corixinae Leach, 1815

Tribe Corixini Leach, 1815

Corixa sp.: I. The single female specimen collected cannot be identified in the absence of male specimens.

CIMICOMORPHA

Family **ANTHOCORIDAE** Fieber, 1836

Subfamily Lytcorinae Reuter, 1884

Tribe Xylocorini Carayon, 1972

Xylocoris (Proxylocoris) galactinus (Fieber, 1836): I. The species is widely distributed in Europe, Asia and North America (Önder et al., 2006).

Family **NABIDAE** A. Costa, 1853
Subfamily Nabinae A. Costa, 1853
Tribe Nabini A. Costa, 1853

Nabis (Tropiconabis) capsiformis Germar, 1838: II.
Nabis pseudoferus orientarius Remane, 1962: I.

Family **REDUVIIDAE** Latreille, 1807
Subfamily Peiratinae Amyot & serville, 1843

* ***Ectomocoris (Ectomocoris) caucasicus*** Linnavuori, 1972. The species is distributed in South Russia, Azerbaijan, Armenia and Georgia and was not mentioned for Turkey until now as far as we know.
Peirates hybridus (Scopoli, 1763): I.

Subfamily Reduviinae Latreille, 1807

Reduvius pallipes Klug, 1830: II.
Reduvius ciliatus Jakovlev, 1879: III.

Family **MIRIDAE** Hahn, 1833
Subfamily Deraeocorinae Douglas & Scott, 1865
Tribe Deraeocorini Douglas & Scott, 1865

Alloeotomus cyprius (Wagner, 1953): II.
Deraeocoris (Camptobrochis) punctulatus Fallén, 1807): II.
Deraeocoris (Camptobrochis) pallens pallens (Reuter, 1904): I.

Subfamily Cylapinae Kirkaldy, 1903
Tribu Dicyphini Reuter, 1883

Macrolophus pygmaeus (Rambur, 1839): I.

Subfamily Mirinae Hahn, 1833
Tribe Mirini Hahn, 1833

Charagochilus gyllenhalii (Fallén, 1807): II.
Lygus gemellatus gemellatus (Herrich-Schaeffer, 1835): I.
Nanopsallus carduellus (Horvath, 1888): I.
Phytocoris sp.: II. A single female too damaged.
Polymerus (Poeciloscytus) vulneratus (Panzer, 1806): I.
Stenodema (Stenodema) turanica Reuter, 1904): I.
Trigonotylus pulchellus (Hahn, 1834): I
Trigonotylus ruficornis (Geoffroy, 1785): I.

Subfamily Orthotylinae Van Duzee, 1916
Tribe Orthotylini Van Duzee, 1916

****Pseudoloxops sangrudanus*** Linnavuori, 2006: II. This species recently described was only known from Iran until now.

Reuteria sp.: I. A single male damaged.

****Orthotylus (Parapachylops) junipericola armoricanus*** Ehanho & Matocq, 1990 or ***O. (P.) junipericola balcanicus*** Josifov, 1974: II. Single male. The two subspecies are very similar and it is necessary to study further specimens to settle.

Subfamily Phylinae Douglas & Scott, 1865
Tribe Hallodapini Van Duzee, 1916

Acrorrhinium conspersum Noualhier, 1895: II.

* ***Acrorrhinium atricorne*** Linnavuori, 2006: I. Only known from Iran

* ***Glaphyrocoris ebikh*** Linnavuori, 1984: I. Only known from Iraq

Hallodapus pseudoconcolor (Linnavuori, 1984): I.

Tribe Phylini Douglas & Scott

Auchenocrepis reuteri Jakovlev, 1876: I

* ***Badezorus signaticornis*** (Reuter, 1904): I. Known from North Africa and Asia Minor.

Campylomma verbasci (Meyer-Dür, 1843): I.

* ***Campylomma celatum*** Wagner, 1969: I. Known from North Africa.

Ectagela guttata Schmidt, 1939: II. Known from North Africa, Asia Minor and tropical Africa.

Plagiognathus (Plagiognathus) bipunctatus Reuter, 1883: II.

Tuponia ayasensis Wagner, 1963: I.

* ***Yotvata pulcherrima*** Linnavuori, 1984: I. Only known from Iraq.

LEPTOPODOMORPHA

Family **LEPTOPODIDAE** Brullé, 1836
Subfamily Leptopodinae Brullé, 1836

Patapius spinosus (Rossi, 1790): II.

Family **SALDIDAE** Amyot & serville, 1843

Saldula sp.: I. The single female specimen collected was too damaged for the identification to species.

PENTATOMOMORPHA

Family **ARADIDAE** Brullé, 1836
Subfamily Aradinae Brullé, 1836

Aradus flavicornis Dalman, 1823: I.

Family **CYDNIDAE** Billberg, 1820
Subfamily Sehirinae Amyot & Serville, 1843
Tribe Sehirini Amyot & Serville, 1843

Ochetostethus sp.: I. The single female specimen collected cannot be identified in the absence of male specimens.

Tribe Geotomini Wagner, 1963

Geotomus sp.: I. Only a single female specimen was collected and cannot be identified in the absence of male specimens.

Tribe Amaurocorini Wagner, 1963

Amaurocoris curtus (Brullé, 1838): I.

Family **LYGAEIDAE** Schilling, 1829

Subfamily Orsillinae Stal, 1872

Tribe Nysiini Uhler, 1876

Nysius cymoides (Spinola, 1837): II. A very common species.

Subfamily Oxycareninae Stal, 1862

Leptodemus minutus (Jakovlev, 1876): II.

Oxycarenus (Euoxycarenus) pallens (Herrich-Schaeffer, 1850): I.

Subfamily Rhyparochrominae Amyot & Serville, 1843

Tribe Antilocorini Ashlock, 1964

Tropistethus lanternae Linnavuori, 1960: I.

Tribe Drymini Stal, 1872

Scolopostethus sp.: III. A single female specimen damaged.

Tribe Gonianotini Stal, 1884

Emblethis angustus Montandon, 1890: I.

Emblethis denticollis Horvath, 1878: I.

Tribe Lethaeini Stal, 1872

Camptocera glaberrima (Walker, 1872): I.

Lethaeus picipes (Herrich-Schaeffer, 1850): I.

Tribe Megalonotini Slater, 1957

Lamprodema maura (F., 1803): II.

Megalonotus colon Puton, 1874: II.

Megalonotus maximus (Puton, 1895): I.

Tribe Rhyparochromini Amyot & Serville, 1843

Beosus quadripunctatus (Müller, 1766): I.

Peritrechus rhomboidalis Puton, 1877: I.

Peritrechus flavicornis Jakovlev, 1877: I.

Xanthochilus saturnius (Rossi, 1790): I.

Family **RHOPALIDAE** Amyot & serville, 1843

Subfamily Rhopalinae Amyot & serville, 1843

Tribe Rhopalini Amyot & serville, 1843

Liorhyssus hyalinus (F., 1794): III.

Maccevetus errans ssp. ***caucasicus*** (Kolenati, 1845): I.

COMMENTS

In our sample, 58 species or subspecies are represented. They belong to 50 genera and 11 families. Surprisingly, no representative of three large heteropteran families was present: Pentatomidae, Scutelleridae and Tingidae specimens were missing. We cannot explain this absence which is, at first sight, odd and incomprehensible.

The two best represented families are Miridae and Lygaeidae (respectively 16 genera and 27 genera). In Miridae, there are four entomophagous species belonging to the tribes Deraeocorini and Dicyphini (*Alloeotomus cyprius*, *Deraeocoris* (*Camptobrochis*) *punctulatus*, *D.* (*Camptobrochis*) *pallens pallens*, *Macrolophus pygmaeus*). These species can be regarded as useful for agriculture. All the recorded lygaeid species are phytophagous and without agricultural impact.

Eight species or subspecies (seven mirids and one reduviid, all marked by an asterisk in the list) were not mentioned as present in Turkey in the Palaearctic catalogue of Aukema & Rieger or in the catalogue of Önder et al. (2006) restricted to the Turkey. These records could be new for Turkey. Among them, it is surprising to collect in Turkey the mirid subspecies identified "*Orthotylus* (*Parapachylops*) *junipericola armoricanus* or *O. (P.) junipericola balcanicus*", because it is only known from France and Spain for the former taxa and from Bulgaria for the latter. Nevertheless one can remind that Carapezza (1997) divided the seven subspecies of *junipericola* into two groups of subspecies: a North-African one and an European-Anatolian, the latter including both *O. (P.) junipericola armoricanus* / *O. (P.) junipericola balcanicus*.

Our inventory of the heteropteran species present in the region (Diyarbakır, Elazığ, Mardin) go on, using additional complementary methods. The next list of species, still in preparation and restricted to the terrestrial true bugs, will be considerably much long and will include Pentatomidae, Scutelleridae and Tingidae specimens.

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