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ADDITIONAL NOTES ON DELPHACIDAE, TETTIGOMETRIDAE AND CIXIDAE [AUCHENORRHYNCHA (INSECTA: HEMIPTERA)] FAUNA IN EAST AND SOUTHEAST ANATOLIA REGION OF TURKEY

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ABSTRACT

This study was carried out to contribute the Delphacidae, Tettigometridae and Cixiidae (Hemiptera) fauna in the East and Southeast Anatolia Region of Turkey. Specimens were collected from different locations of the study area, in 2007, 2008, 2014 and 2015, and prepared according to standard methods. 7 species belonging to 6 genera from 3 families were determined: *Hyalesthes obsoletus*, *Pentastiridius leporinus*, *Laodelphax striatellus*, *Sogatella vibix*, *Toya propinqua*, *Tettigometra atra* and *Tettigometra macrocephala*. Number of examined specimens, host plants and distribution of species in Turkey have been given. In these species; *P. leporinus*, *L. striatellus* *T. atra*, *T. macrocephala* were new records in these regions.

Keywords: Delphacidae, Tettigometridae, Cixiidae, New Regional Record, Turkey

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INTRODUCTION

Auchenorrhyncha is a suborder of the Hemiptera (true bugs). The hemipteran suborder Auchenorrhyncha includes planthoppers, leafhoppers, treehoppers, spittlebugs and cicadas. Members of the suborder Auchenorrhyncha occur in all major zoogeographic regions apart from Antarctica. The species rich in the tropics, the suborder includes a major component of the phytophagous fauna in privately many terrestrial ecosystem [1] In Turkey; many studies have carried out in 20. century. In the recent times; many studies have been carried out with on Auchenorrhyncha in the Eastern and Southeastern Anatolia, but these studies are limited [2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18]. These studies were carried out in non-agricultural and intra-agricultural areas. They are important in terms of interactions with plant and insect species in habitats for detailed studies at future. Additionally; They are important out of their direct damage due to some of this species are vectors of viruses and phytoplasmic diseases that. The results of this study are contribute to biodiversity.

MATERIALS AND METHODS

Several sampling methods were used for collecting Auchnorhycha species, differing on the activity patterns of the different species. The species were captured individually using net trap during the morning period. One light trap on the ground was used at each area from the mid July to the mid October season. A 20 watt Philips energy that saver white day light bulb was used at each trap and traps were cleared at two weeks interval. The collected material was deposited in Suluova Vocational School, of Amasya University.

RESULTS AND DISCUSSION

Family Cixidae

Hyalesthes obsoletus Signoret, 1865

Host Plant Area: Cherry, Vineyard

Material examined: 2♀, 5♂, 22.07.2014, Elazığ, Doğukent, 38° 40' 53.7564" N, 39° 16' 5.0376" E. Totally: 7 species.

Distribution in Turkey: Adana, Ankara, Adapazarı, Adıyaman, Ağrı, Ankara, Antalya, Aydın, Balıkesir, Bursa, Çanakkale, Çorum, Diyarbakır, Elazığ, Erzincan, Erzurum, Eskişehir, Gaziantep, Giresun, Hakkari, İstanbul, İçel, Kars, Konya, Manisa, Mardin, Muğla, Sinop, Sivas, Tokat, Trabzon, Urfa, Van, [10, 19]

***Pentastiridius leporinus* Linné, 1761**

Host Plant Area: Pistachio, Cotton

Material examined: 2♀, 5♂, 11.08.2007, Siirt, Aydınlar, 37° 57' 30.7908" N, 42° 2' 39.3720 E. 5♂, 01.06.2015 Şırnak, Silopi, 37° 7' 35.9724" N, 42° 25' 25.3704" E. **Totally:** 12 species

Distribution in Turkey: Adana, Antalya, Ağrı, Ankara, Aydın, Bitlis, Diyarbakır, Hatay, Kahramanmaraş, Mardin, Mersin, Niğde [20].

Family Delphacidae

***Laodelphax striatellus* Fallen, 1826**

Host Plant Area: Cherry, Vineyard, Pistachio, Cotton

Material examined: 3♀, 12♂, 01.08.2014, Elazığ, Doğukent, 38° 40' 53.7564" N, 39° 16' 5.0376" E 11♀, 12♂, 12.07.2007, Siirt, Aydınlar, 37° 57' 30.7908" N, 42° 2' 39.3720 E, 22♀, 13♂, 01.06.2015, Şırnak, Silopi, 37° 7' 35.9724" N, 42° 25' 25.3704" E. **Totally:** 73 species

Distribution in Turkey: Adana, Adıyaman, Amasya, Ankara, Antalya, Bilecik, Bitlis, Çorum, Diyarbakır, Erzincan, Erzurum, Eskişehir, Iğdır, İçel, İzmir, Kahramanmaraş, Kars, Malatya, Mersin, Muğla, Niğde, Ordu, Rize, Samsun, Siirt, Sinop, Tokat [2, 3, 9, 12, 13, 16, 18, 21]

***Sogatella vibix* Haupt, 1927**

Host Plant Area: Cherry, Vineyard, Pistachio, Cotton

Material examined: 2♀, 5♂, 01.08.2014, Doğukent, Elazığ, 38° 40' 53.7564" N, 39° 16' 5.0376" E, 6♀, 7♂, 12.07.2007, Siirt, Aydınlar, 37° 57' 30.7908" N, 42° 2' 39.3720 E 11♀, 8♂, 15.08.2015, Şırnak (Silopi, 37° 7' 35.9724" N, 42°

25' 25.3704" E. **Totally:** 39 species.

Distribution in Turkey: Adıyaman, Amasya, Bitlis, Diyarbakır, Elazığ, Erzurum, Gaziantep, İçel, İzmir, Konya, Mardin, Nevşehir, Samsun, Siirt, Şanlıurfa, Tokat, Van [4, 9, 12, 13, 18, 21, 21].

***Toya propinqua* Fieber, 1866**

Host Plant Area: Cotton

Material examined: 11♀, 8♂, 08, 08, 2015, Şırnak, Silopi, 37° 7' 35.9724" N, 42° 25' 25.3704" E. **Totally:** 19 species

Distribution in Turkey: Adana, Afyon, Amasya, Ankara, Antalya, Aydın, Çanakkale, Çorum, Denizli, Diyarbakır, Erzurum, Gaziantep, Hatay, Isparta, İçel, İskenderun, İzmir, Kastamonu, Mardin, Muğla, Ordu, Samsun, Siirt, Sinop, Şırnak, Tokat [2, 3, 9, 12, 13, 20].

Tettigometridae

***Tettigometra atra* Hagenbach, 1825**

Host Plant Area: Pistachio

Material examined: 2♀, 2♂, 22.09.2007, Siirt, Aydınlar, 37° 57' 30.7908" N, 42° 2' 39.3720 E. **Totally:** 4 species

Distribution in Turkey: Ankara, Mardin, Mersin [16, 22, 23].

***Tettigometra macrocephala* Fieber, 1865**

Host Plant Area: Pistachio

Material examined: 5♂, 22.08.2008, Siirt, Aydınlar, 37° 57' 30.7908" N, 42° 2' 39.3720 E. **Totally:** 5 species

Distribution in Turkey: Kocaeli, Van [23]

In total, 7 Auchenorrhyncha species from three families (Cixiidae, Delphacidae, Tettigometridae) were recorded in these provinces. The distribution of collected species in each province varied greatly; these were in total, 3 species from two families recorded at one sampling locations in Elazığ, 5 species from three families recorded at two sampling locations in Siirt, 3 species from three families at two sampling locations in Şırnak respectively.

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