



Investigations on Heteroptera (Hemiptera) Species in Cereal Agroecosystem of Turkish Republic of Northern Cyprus

Celalettin GÖZÜAÇIK^{1*}, Ayda KONUKSAL²

¹ University of Iğdır, Faculty of Agriculture, Department of Plant Protection, Iğdır, Turkey

² Agricultural Research Institute, Lefkoşa, Turkish Republic of Northern Cyprus

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Abstract: In this study, 35 specimens belonging to Coreidae (3), Lygaeidae (5), Miridae (6), Pentatomidae (12), Pyrrhocoridae (1), Reduviidae (1), Rhopalidae (3), Scutelleridae (3) and Tingidae (1) families of Heteroptera suborder (Hemiptera) have been determined in cereal agroecosystem of Turkish Republic Northern Cyprus in 2018-2019. The most of these species are new record for these locations. Among them, *Lygaeosoma anatolicum* Seidenstücker, 1960 (Lygaeidae) is new record for the island of Cyprus.

Kuzey Kıbrıs Türk Cumhuriyeti Hububat Alanlarında Heteroptera (Hemiptera) Türleri Üzerine Araştırmalar

Anahtar Kelimeler:
Hububat alanları,
Heteroptera,
Kuzey Kıbrıs

Abstract: Çalışmada Kuzey Kıbrıs Türk Cumhuriyeti hububat alanlarında 2018-2019 yıllarında Heteroptera (Hemiptera) alt takımının Coreidae (3), Lygaeidae (5), Miridae (6), Pentatomidae (12), Pyrrhocoridae (1), Reduviidae (1), Rhopalidae (3), Scutelleridae (3) ve Tingidae (1) familyalarına ait 35 tür belirlenmiştir. Bu türlerden çoğu bulunduğu lokasyonlarda, *Lygaeosoma anatolicum* Seidenstücker, 1960 (Lygaeidae) ise Kıbrıs adasında ilk defa kaydedilmiştir.

1. INTRODUCTION

Turkish Republic of Northern Cyprus is located in the north east of the island. Agriculture and livestock are one of the important livelihoods of country. Cereals are cultivated in large areas to support livestock. Many species of insect directly or indirectly cause damage to cereals. The heteroptera suborder among insects are the important pests of cereals. Most heteroptera pierce tissues of plants and feed on their juices (Knight, 1941; McGavin, 1992), live as entomophagous (Hassanzadeh et al., 2009), and many of them

are serious plant pests or predators of other insects (Safavi, 1973). The Hemiptera is one of the largest insect groups with at least 82.000 described species (Arnett, 2000), with the Heteroptera being the largest group with more than 35.000 species (Slater, 1982). The true bugs that occur in cereals fields of Northern Cyprus are poorly known. This study proposed to identify the species found in the barley and wheat fields in different regions and resulted in finding of 35 Heteroptera species one of which is new for the Heteroptera fauna of Cyprus Island.

*İlgili yazar: cgozuacik46@gmail.com

2. MATERIAL AND METHODS

The specimens were collected from cereal fields of Lefkoşa, Gazimağusa, Girne, Güzelyurt, and Iskele regions of Turkish Republic of Northern Cyprus by standard sweeping net on barley and wheat in 2018-2019. Insect specimens of large and medium size were mounted on pin while small insects were preserved in 70% alcohol. Locality and date of collection were provided and Heteroptera species were diagnosed by Barış Çerçi (İzmir).

3. RESULTS

Family: Coreidae

Centrocoris variegatus Kolenati 1845

Material examined: 1 specimen was collected from Serdarlı, Gazimağusa district, and 2 specimens were collected from Hisarköy, Girne district in 27.03.2018.

Distribution in the world: EU: Albania, Bosnia & Herzegovina, Bulgaria, Croatia, France, Greece, Hungary, Italy, Malta, Macedonia, Portugal, Romania, Slovenia, Spain, Switzerland, Yugoslavia (Serbia, Montenegro); NA: Algeria, Canary Isles, Egypt, Libya, Morocco (Spanish Possessions incl.), Madeira, Tunisia; AS: Azerbaijan, Armenia, Cyprus, Georgia, Iran, Israel, Jordan, Turkey (European and Asian parts) (Önder et al., 2006).

Host plants: *Sambucus ebulus* L. (Dursun and Fent, 2009).

Note: First record in Gazimağusa and Girne districts.

Coriomeris affinis (Herrich-Schaeffer, 1839)

Material examined: 2 specimens were collected from Çatalköy, Girne district in 17.04.2019.

Distribution in the world: EU: Albania, Bosnia & Herzegovina, Bulgaria, Croatia, France, Greece, Hungary, Italy, Macedonia, Portugal, Romania, Spain, Switzerland, Yugoslavia (Serbia, Montenegro); NA: Algeria, Canary Isles, Egypt, Libya, Morocco, Tunisia; AS: Cyprus, Iran, Iraq, Israel,

Lebanon, Syria, Turkey (Asian part) (Önder et al., 2006).

Host plants: *Bromus* sp. (Dursun and Fent, 2009).

Note: First record in Girne districts.

Spathocera lobata (Herrich-Schaeffer, 1840)

Material examined: 2 specimens were collected from Çatalköy, Girne district in 17.04.2019.

Distribution in the world: Euro-Mediterranean region to Central Asia (Dolling, 2006)

Host plants: *Polygonum equisetiforme* L., *Imperata cylindrica* (L.) (Gadalla, 1999).

Note: First record in Girne districts.

Family: Rhopalidae

Brachycarenum tigrinus (Schilling, 1829)

Material examined: 3 specimens were collected from Çömlekçi, Lefkoşa district, 2 specimens were collected from Geçitkale, Gazimağusa district, and 2 specimens were collected from Hisarköy, Girne district in 28.03.2018.

Distribution in the world: It is widespread in the Palearctic region (Hoebeke and Wheeler 1982; Önder et al., 2006).

Host plant: Brassicaceae (Wheeler, 2004), *Brassica* sp., *Capsella* sp., *Sinapis* sp., *Trifolium* sp., *Cirsium* sp. (Dethier and Gallant, 1998), *Artemisia* sp., *Carduus* sp., *Ephedra nebrodensis*, *Eryngium* sp., *Gysophylla struthium*, *Juniperus thurifera*, *J. phoenicea*, *Onopordum* sp., *Salsola* sp. (Ribes et al., 1997).

Note: First record in Gazimağusa, Girne and Lefkoşa districts.

Corizus hyoscyami (Linnaeus, 1758)

Material examined: 5 specimens were collected from Paşaköy, Gazimağusa district, 4 specimens were collected from Taşpınar, Güzelyurt district, and 2 specimens were collected from Çamlıbel, Girne district in 18.04.2019.

Distribution in the world: Europe, Morocco, Tunisia (Önder et al., 2006) and Iraq (Razzaq and Nassreen, 2013).

Host plants: *Ononis spinosa*, *Cirsium*, and *Serratula given* (Göllner-Scheiding, 1976), *Echinops viscosus* DC. subsp. *bithynicus* (Asteraceae) and *Solanum nigrum* L. subsp. *nigrum* (Solanaceae) (Özsaraç and Kıyak, 2001), Asteraceae (Linnavuori, 2007).

Note: First record in Gazimağusa, Girne and Güzelyurt districts.

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

Material examined: 2 specimens were collected from Çatalköy, Girne district in 17.04.2019.

Distribution in the world: Germany (Heckmann and Rieger, 2001), Canaries (Aukema et al., 2006), Japanese (Tomokuni, 1989), Belgium (Baugnée et al., 2000), Spain (Vázquez et al., 2003), Iran (Linnavuori & Modarres, 1998), Jordan (Katbeh et al., 2000) Ancienne Yugoslavia (Protić, 2001), Slovenia, Croatia, Serbia, Montenegro, Macedonia, Tunisia (Carapezza, 1997), Barga (Kment & Batelka, 2005) Turkey (Önder et al., 2006).

Host plants: *Atriplex*, *Centaurea*, *Gypsophila*, *Helianthemum*, *Lavatera* and *Salsola* (Ribes et al., 1997).

Family: Pentatomidae

***Aelia acuminata* (Linnaeus, 1758)**

Material examined: 4 specimens were collected from Karşıyaka, Girne district, 4 specimens were collected from Akdeniz, Güzelyurt district in 18.04.2019, and 3 specimens were collected from Kırklar, Lefkoşa district, in 17.04.2019.

Distribution in the world: Eastern Europe, Iran, Israel, the Caucasus, Cyprus, Turkey and Turkmenistan (Önder et al., 2006).

Host plants: *Aegilops cylindrica* Host., *Alopecurus myosuroides* Hudson, *Avena sterilis* L., *Bromus inermis* Leysser, *B. tectorum* L., *Hordeum geniculatum* All., *H. murinum* L., *Hordeum* sp., *Lolium rigidum* Gaudin, *Oryza sativa* L., *Phalaris brachysachys* L., *Poa annua* L., *P. bulbosa* L., *Secale montanum* L., *Triticum* sp. (Poaceae) (Gözüaçık et al., 2011).

Note: First record in Girne, Güzelyurt and Lefkoşa districts.

***Aelia rostrata* Boheman, 1852**

Material examined: 2 specimens were collected from Çatalköy, Girne district, 1 specimen was collected from Akdeniz, Güzelyurt district in 18.04.2019.

Distribution in the world: Iran, Serbia (Hassanzadeh et al 2009), the Mediterranean Countries, Romania (Morariu and Moglan, 2014).

Host plants: *Triticum* spp. (Fent and Aktaç, 1999), *Hordeum vulgare* (Poaceae), *Secale cereale* (Poaceae), *Triticum sativa* (Poaceae) (Lodos et al., 1998), *Aegilops cylindrica* (Gözüaçık et al., 2011).

Note: First record in Girne, Güzelyurt and Lefkoşa districts.

***Peribalus strictus strictus* (Fabricius, 1803)**

Material examined: 2 specimens were collected from Çamlıbel, Girne district, and 4 specimens were collected from Yeşilirmak, Güzelyurt district in 4.05.2018.

Distribution in the world: Mediterranean Sea and surroundings, Near East, Central Asia, Euro-Siberia, Pakistan, Iran (Ghahari et al., 2014), Romania (Morariu and Moglan, 2014), Israel, Cyprus, Syria (Önder et al., 2006).

Host plants: *Medicago sativa*, *Morus* sp., *Trifolium* sp. (Gözüaçık et al., 2011).

Note: First record in Girne and Güzelyurt districts.

***Dolycoris baccarum* (Linnaeus, 1758)**

Material examined: 5 specimens were collected from Kırklar, Çömlekçi Lefkoşa district, 2 specimens were collected from Geçitkale, Gazimağusa district, specimens were collected from Koruçam, Girne district in 3.05.2018, and 5 specimens were collected from Aşağı Bostancı, Taşpınar, Güzelyurt district in 18.04.2019.

Distribution in the world: Germany, Albania, Austria, Balearic Islands, Belgium, Bulgaria, Czechoslovakia, China, Denmark, Finland, France, Crete, Greenland, South England, India, Netherlands, Iran, Ireland, Spain, Sweden, Switzerland, Italy, Japan, Canary Islands, Cyprus, Corsica, Hungary, Norway, Portugal, Romania, Russia, Sardinia, Siberia, Sicily, Syria, Yugoslavia (Awad, 2000),

Turkey (Önder et al., 2006), Iraq, Israel, the Caucasus, Syria, Romania (Morariu and Moglan, 2014),

Host plants: *Triticum* sp., *Onopordon* sp., *Trifolium* sp., *Medicago sativa*, *Sesamum indicum*, *Helianthus annuus* (Fent and Aktaç, 1999), *Sinapsis arvensis* (Özgen et al., 2005), *Brassica napus* var *oleifera*, *Sinapsis arvensis*, *Symbrium officinale* (Brassicaceae), *Ervum ervilia*, *Lens culinaris*, *Gundelia* sp., *Onopordum acanthium*, *O. carduchorum* (Asteraceae), *Sesamum indicum* (Pedaliaceae), *Silene colorata* (Caryophyllaceae), *Verbascum thapsus* (Scrophulariaceae) (Gözüaçık et al., 2011).

Note: First record in Gazimağusa, Girne and Güzelyurt districts.

***Codophila varia* (Fabricius, 1787)**

Material examined: 2 specimens were collected from Mehmetçik, İskele district, and 4 specimens were collected from Aslanköy, Gazimağusa district in 3.05.2018.

Distribution in the world: Europe, Iran, Israel, the Caucasus, North Cyprus, Iraq, Syria, Tajikistan, Turkey (Önder et al., 2006).

Host plants: *Carduus pycnocephalus*, *Centaurea iberica*, *C. solstitialis*, *Echinops ritro* L., *Scolymus* sp., (Asteraceae); *Eryngium campestre* L., *E. creticum* Lam., (Apiaceae); *Helianthus annuus*, *Sesamum indicum* (Gözüaçık et al., 2011).

Note: First record in Gazimağusa and İskele districts.

***Carpocoris mediterraneus mediterraneus* Tamanini, 1958**

Material examined: 3 specimens was collected from Mutluyaka, Gazimağusa district, and 1 specimen was collected from Yukarı Bostancı, Güzelyurt district in 27.03.2018.

Distribution in the world: Mediterranean countries, Iran, Iraq, Turkey, Turkmenistan, Ethiopia, (Önder et al 2006), Italy, the Balkans, Egypt (Lupoli et al., 2013).

Host plants: *Triticum* sp. (Poaceae), *Medicago sativa* (Fabaceae), *Allium cepa* (Alliaceae), *Onopordum* sp., *Carlina* sp. (Asteraceae), Compositae species (Fent ve Aktaç, 1999), *Carduus pycnocephalus*,

Echinops microcephalus, *Helianthus annuus* (Asteraceae) (Gözüaçık et al., 2011), *Althaea* sp. (Malvaceae), *Asphodelus* sp. (Xanthorrhoeaceae), *Centaurea* sp. (Asteraceae), *Echium* sp. (Boraginaceae), *Knautia* sp. (Dipsacaceae), *Olea europea* (Oleaceae), *Onopordum* sp. (Asteraceae), *Phlomis* sp. (Lamiaceae), *Sinapis* sp. (Brassicaceae), *Triticum sativa* (Poaceae), *Verbascum* sp. (Scrophulariaceae) (Lodos et al., 1998).

Note: First record in Gazimağusa and Güzelyurt districts.

***Eurydema ornata* (Linnaeus, 1758)**

Material examined: 5 specimens were collected from Kırklar, Çömlekçi, Lefkoşa district, 2 specimens were collected from Geçitkale, Gazimağusa district, 2 specimens were collected from Hisarköy, Girne district in 3.05.2018, and 5 specimens were collected from Aşağı Bostancı, Taşpınar, Güzelyurt district in 18.04.2019.

Distribution in the world: Iran, Israel, Caucasus, Cyprus, Egypt, Syria, Turkey, Turkestan, Ethiopia, India and Pakistan (Önder et al., 2006).

Host plants: *Brassica oleracea* (Brassicaceae), *Rorippa* sp. (Brassicaceae) and Cruciferae (Fent and Aktaç, 1999), *Brassica napus*, *Capparis* sp. *Cardaria draba* (Brassicaceae), *Crambe orientalis* (Brassicaceae), *Lepidum sativum*, *Sinapis arvensis*, *Symbrium officinale*, *Carthamus* sp. (Compositae) (Gözüaçık et al., 2011).

Note: First record in Gazimağusa, Girne, Güzelyurt and Lefkoşa districts.

***Graphosoma semipunctata* (Fabricius, 1775)**

Material examined: 3 specimens were collected from Çamlıbel, Girne district, and 2 specimens were collected from Yeşilirmak, Girne district in 4.05.2018.

Distribution in the world: Afghanistan, Iran, Israel, the Caucasus, Cyprus, Turkmenistan, Turkey and Turkmenistan (Önder et al., 2006).

Host plants: *Conium maculatum* L., *Daucus carota*, (Apiaceae); *Eryngium creticum*, *E. campestre* (Gözüaçık et al., 2011).

Note: First record in Girne district.

***Ancyrosoma leucogrammes* (Gmelin, 1789)**

Material examined: 4 specimens were collected from Çamlıbel, Girne district, and 2 specimens were collected from Yeşilirmak, Güzelyurt district in 4.05.2018.

Distribution in the world: Mediterranean Basin, Caucasus, Central Asia, Siberia and Mongolia (Ghahari et al., 2014), Iran, Israel, Cyprus, Northern Iraq, Egypt, Syria, Tajikistan and Turkey (Önder et al., 2006).

Host plants: Apiaceae (*Caucalis* sp., *Tordilium* sp., *Torilis* sp., *Daucus* sp.), *Eryngium creticum*, *E. campestre*, *Daucus carota* (Apiaceae) (Gözüaçık et al., 2011).

Note: First record in Girne and Güzelyurt districts.

***Tholagus flavolineatus* (Fabricius, 1798)**

Material examined: 3 specimens were collected from Dipkarpaz, İskele district, in 3.05.2018.

Distribution in the world: Southern European countries, Iraq, Iran, Israel, the Caucasus, Cyprus, Egypt, Turkey (Önder et al., 2006).

Host plants: *Eryngium campestre*, *E. creticum* (Gözüaçık et al., 2011).

Note: First record in İskele districts.

***Piezodorus lituratus* (Fabricius, 1794)**

Material examined: 2 specimens were collected from Hamitköy, Lefkoşa district, and 1 specimen was collected from Yeşilirmak, Güzelyurt district in 4.05.2018.

Distribution in the world: European countries, Iran, Israel, the Caucasus, Cyprus, Syria, Turkey (Önder et al., 2006).

Host plants: *Crataegus azarrolus* L., (Rosaceae); *Elaeagnus* sp., *Ervum ervilia* L., *Lens culinaris* Medik., *Medicago sativa* L., *Trifolium* sp., (Fabaceae); *Morus* sp., *Prunus armeniaca* (Gözüaçık et al., 2011).

Note: First record in Güzelyurt and Lefkoşa districts.

***Eysarcoris ventralis* (Westwood, 1837)**

Material examined: 2 specimens were collected from Çamlıbel, Girne district, and 1 specimen was collected from Yeşilirmak, Güzelyurt district in 4.05.2018.

Distribution in the world: Palearctic region (Önder et al., 2006).

Host plants: *Calluna vulgaris*, *Echium vulgare*, *Salvia viridis*, *Stipa bromoides* (Dursun and Fent, 2009), *Oryza sativa*, *Salvia* sp. (Lamiaceae) (Gözüaçık et al., 2011).

Note: First record in Girne and Güzelyurt districts.

Family: Reduviidae***Coranus griseus* (Rossi, 1790)**

Material examined: 1 specimen was collected from Çömlekçi, Lefkoşa district, 2 specimens were collected from Aslanlı, Gazimağusa district in 18.04.2019.

Distribution in the world: Iran, Euro-Siberian: Europe, Kazakhstan, Northwestern China, Russia (West Siberia) (Putshkov & Putshkov, 1996; Aukema et al. 2013), Turkey (Önder, 1980).

Host plants: *Sinapis arvensis*, *Quercus*, *Nicotiana tabacum*, *Narcissus*, *Alhagi*, *Gossypium*, *Oryza sativa*, *Beta vulgaris* (Önder, 1980).

Note: First record in Gazimağusa and Lefkoşa districts.

Family: Pyrrhocoridae***Pyrrhocoris apterus* (Linnaeus, 1758)**

Material examined: 2 specimens were collected from Alayköy, Lefkoşa district, 2 specimens were collected from Geçitkale, Gazimağusa district, 2 specimens were collected from Koruçam, Girne district, and 1 specimen was collected from Aşağı Bostancı, Güzelyurt district in 27.10.2018.

Distribution in the world: Afghanistan, Albania, Algeria, Austria, Balearic Islands, Belgium, Bulgaria, the Caucasus, Asia, Russia, Corsica, Costa Rica, Cyprus, Czechoslovakia, Denmark, England, France, Germany, Greece, Hungary, Iran, Iraq, Israel, Italy, Kashmir, Mongolia, Morocco, Netherlands, Poland, Portugal, Romania, Sardinia, Siberia, Spain, Sweden, Switzerland, Syria, Tajikistan, Tunisia, Turkey, America, Yugoslavia (Awad and Önder, 1997).

Host plants: Asparagaceae, Asteraceae (esp. *Helianthus annuus*), Betulaceae, Boraginaceae, Cornaceae, Cupressaceae, Fabaceae (including

Robinia pseudacacia and *Caragana arborescens*), Fagaceae, Lamiaceae, Malvaceae (s.str.), Rosaceae, Sapindaceae, Tiliaceae and Ulmaceae (Puchkov, 1974; Pluot, 1978; Ahmad and Schaefer, 1987).

Note: First record in Gazimağusa, Girne, Güzelyurt and Lefkoşa districts.

Family: Scutelleridae

***Eurygaster integriceps* (Puton, 1881)**

Material examined: 7 specimens were collected from Kırklar, Çömlekçi, Lefkoşa district, 11 specimens were collected from Aslanlı, Beyarmudu, Gaziköy, Mutluyaka, Paşaköy, Gazimağusa district, 2 specimens were collected from Hisarköy, Girne district in 27.03.2018, and 4 specimens were collected from Aşağı Bostancı, Taşpınar, Güzelyurt district in 18.04.2019.

Distribution in the world: Palearctic region (Önder et al., 2006).

Host plants: *Triticum* sp., *Hordeum* sp., L., *Poa annua* L., *P. bulbosa* L., *Bromus inermis* Leysser, *B. tectorum* L., *Lolium rigidum* Gaudin, *Hordeum murinum* L., *H. geniculatum* All., *Aegilops cylindrica* Host., *Avena sterilis* L., *Secale montanum* L., *Phalaris brachysathys* L., *Alopecurus myosuroides* Hudson (Poaceae) (Gözüaçık and Fent, 2012).

***Odontotarsus robustus* Jakovlev, 1884**

Material examined: 2 specimens: 1 specimen was collected from Gaziköy Gazimağusa district, 1 specimen was collected from Hisarköy, Girne district in 27.03.2018.

Distribution in the world: Israel, the Caucasus, Cyprus, Egypt, Syria, Turkmenistan, Turkey, Yugoslavia (Önder et al., 2006).

Host plants: *Centaurea calcitrapa*, *C. iberica*, *Carduus pycnocephalus*, *Eryngium creticum*, *E. campestre* (Gözüaçık and Fent, 2012)

Note: First record in Gazimağusa and Girne districts.

***Psacasta tuberculata* (Fabricius, 1781)**

Material examined: 1 specimen was collected from Gaziköy Gazimağusa district in 3.04.2018.

Distribution in the world: Israel, Central Europe, Turkey (Önder et al., 2006).

Host plants: *Bromus inermis*, *Lolium rigidum* (Gözüaçık and Fent, 2012).

Note: First record in Gazimağusa districts.

Family: Lygaeidae

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

Material examined: 2 specimens were collected from Kırklar, Lefkoşa district, 3 specimens were collected from Aslanlı Gazimağusa district in 27.03.2018, and 1 specimen was collected from Aşağı Bostancı, Güzelyurt district in 18.04.2019.

Distribution in the world: Mediterranean Countries, Germany, Ethiopia, Canada, Turkey (Önder et al., 2006).

Note: First record in Gazimağusa, Güzelyurt and Lefkoşa districts.

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

Material examined: 2 specimens were collected from Çatalköy, Girne district in 17.04.2019.

Distribution in the world: Oriental Region, Israel, Cyprus, Egypt, Syria, Turkey (Önder et al., 2006).

Host plants: Malvaceae (Péricart, 1998).

Note: First record in Girne districts.

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

Material examined: 4 specimens were collected from Esentepe, Çatalköy, Girne district in 27.04.2018.

Distribution in the world: Albania, Astrakhan, Austria, Balearic Islands, Belgium, Bulgaria, Caucasus, Corsica, Crimea, Cyprus, Czechoslovakia France, Germany, Greece, Holland, Hungary, Italy, Malta, Poland, Portugal, Romania, Russia, Siberia, Spain, Turkey, Yugoslavia, Afghanistan, India, Israel, Syria, Turkestan, Algeria, Canary Islands, Egypt, Morocco, Tunisia (Slater, 1964).

Host plants: It was collected on *Hordeum vulgare* L.

Note: First record in Girne districts.

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

Material examined: 3 specimens were collected from Kırklar, Çömlekçi Lefkoşa district, 3 specimens were collected from Aslanlı, Beyarmudu, Gaziköy, Mutluyaka, Paşaköy, Gazimağusa district, 1 specimen was

collected from Hisarköy, Girne district in 27.03.2018, and 5 specimens were collected from Aşağı Bostancı, Taşpınar, Güzelyurt district in 18.04.2019.

Distribution in the world: European countries, Israel, Caucasus, Cyprus, Egypt, Turkistan and Turkey (Önder et al., 2006).

Host plants: It was collected on *Hordeum vulgare* L.

Note: First record in Gazimağusa, Girne, Güzelyurt and Lefkoşa districts.

***Lygaeosoma anatolicum* Seidenstücker, 1960**

Material examined: 2 specimens were collected from Çatalköy, Girne district in 17.04.2019.

Distribution in the world: Bulgaria, France, Greece, Hungary, Romania, Russia, Spain, Ukraine, Azerbaijan, Kazakhstan, Armenia, Turkey, Georgia, Iran, Iraq, Israel, Syria (Aukema and Rieger, 2001).

Host plants: *Prunus persica* and *Verbascum* sp. (Lodos, et al., 1998).

Note: First record in Gazimağusa, Girne, Güzelyurt and Lefkoşa districts and island Cyprus.

Family: Miridae

***Lygus pratensis* (Linnaeus 1758)**

Material examined: 3 specimens were collected from Alayköy, Lefkoşa district, 2 specimens were collected from Geçitkale, Gazimağusa district, 2 specimens were collected from Koruçam, Girne district, and 1 specimen was collected from Aşağı Bostancı, Güzelyurt district in 27.10.2018.

Distribution in the world: Palearctic Region and India (Kerzhner and Josifov, 1999), Turkey (Önder et al., 2006).

Host plants: *Hibiscus cannabinus* (Conti and Bin, 2001).

Note: First record in Gazimağusa, Girne, Güzelyurt and Lefkoşa districts.

***Deraeocoris pallens* (Reuter, 1904)**

Material examined: 1 specimen was collected from Akdeniz, Güzelyurt district, 2 specimens were collected from Geçitkale, Gazimağusa district, 2 specimens were collected from Koruçam, Girne district, and 1 specimen was

collected from Aşağı Bostancı, Güzelyurt district in 17.04.2019.

Distribution in the world: Iran, Israel, Syria, Turkey (Önder et al., 2006).

Hosts: Polyphagous predator (Ghavami et al., 1998)

Note: First record in Gazimağusa, Girne and Güzelyurt districts.

***Eurystylus bellevoeyi* (Reuter, 1879)**

Material examined: 2 specimens were collected from Akdeniz, Güzelyurt district in 17.04.2019.

Distribution in the world: East and West Africa, Algeria, Ceylon, Egypt, Katanga, Iran, Togo, Transcaspia (Carvalho, 1957-60), Canary Islands (Wagner, 1954), Mauritania (Villiers, 1956), South Africa (Carvalho et al., 1960), Israel (Linnavuori, 1960), Spain (Ribes, 1990), Cyprus (Stonedahl, 1995) and Malta (Carapezza and Mifsud, 2015) Turkey (Çerçi and Koçak, 2016).

Host plants: *Medicago* sp. (Lashkari et al., 2011), Amaranthaceae, Zygophyllaceae (Carapezza & Mifsud 2015), Brassicaceae, Capparaceae, Solanaceae, etc.) (Linnavuori et al., 2014).

Note: First record in Güzelyurt districts.

***Taylorilygus apicalis* (Fieber, 1861)**

Material examined: 3 specimens were collected from Gaziköy Gazimağusa district in 3.04.2018.

Distribution in the world: Asia: South Korea, China (Southeastern), Cyprus, Egypt (Sinai), Iran, Iraq, Israel, Japan, Lebanon, Saudi Arabia, Taiwan, Turkey (Asian part), Yemen, Oriental Region; Europe: Central, Eastern, Southern, Western; North America: Cuba, Mexico, United States of America (mainland, introduced in Hawaii); Australasia: Australia (Oh et al., 2018).

Host plants: *Parthenium hysterophorus*, *Conyza* spp., *Solidago chilensis*, *Eupatorium* spp. and *Baccharis* spp. (Williams et al., 2003)

Note: First record in Gazimağusa districts.

***Calocoris nemoralis* (Fabricius, 1787)**

Material examined: 2 specimens were collected from Çatalköy, Girne district in 17.04.2019.

Distribution in the world: Azores, Canary Islands, Cyprus, Madeira Island, Australian, Nearctic and Palearctic Regions (Önder et al., 2006).

Note: First record in Girne districts.

***Closterotomus norwegicus* (Gmelin, 1790)**

Material examined: 5 specimens were collected from Esentepe, Çatalköy, Girne district in 17.04.2019.

Distribution in the world: Azores, Canary Islands, Cyprus, Madeira Island, Australian, Nearctic and Palearctic Regions (Önder et al., 2006).

Host plants: *Urtica dioica*, *Ferula* sp., *Solanum* sp. (Torma, 2009).

Note: First record in Girne districts.

Family: Tingidae

***Copium teucarii* (Host, 1788)**

Material examined: 1 specimen was collected from Çatalköy, Girne district in 17.04.2019.

Distribution in the world: Germany, Albania, Austria, Belgium, Bulgaria, Morocco, France, Netherlands, Iran, Spain, Israel, Switzerland, Italy, the Caucasus, Cyprus, Crimea, Corsica, North Africa, Hungary, Egypt, Portugal, Syria, Turkey, Greece and Yugoslavia (Drake and Ruhoff, 1965; Péricart, 1983; Lodos and Önder, 1983; Önder et al., 2006).

Host plants: *Helichrysum angustifolium* and *Teucrium* sp. (Drake and Ruhoff, 1965; Péricart, 1983).

Note: First record in Girne districts.

4. DISCUSSION AND CONCLUSION

As a result of the studies, 3 species belonging to 3 genus of the Coreidae family, 5 species belonging to 5 genera of the Lygaeidae family, 6 species belonging to 6 genera of the Miridae family, 12 species belonging to 11 genera of the Pentatomidae family, 1 species belonging to 1 genus of the Pyrrhocoridae family, 1 species belonging to 1 genus of the Reduviidae family, 3 species belonging to 3 genus of the Rhopalidae family, 3 species belonging to 3 genus of the Scutelleridae family, and 1 species belonging to 1 genera of the Tingidae family have been recorded in

cereal agroecosystem of Turkish Republic of Northern Cyprus in 2018-2019. Also, these species are important to give their new location records. From the species obtained in the study, as *Aelia rostrata* and *Eurygaster integriceps* are important pests of cereals. *Liorhyssus hyalinus* (Moulet, 1995; Schaefer and Kotulski, 2000), *Oxycarenus hyalinipennis* (Shah et al., 2016; Slater and Baranowski, 1994), *Piezodorus lituratus* and *Dolycoris baccarum* (Mutlu et al., 2016), *Lygus pratensis* (Yang et al., 2004; Li et al., 2007), *Eurystylus bellevoeyi* (Ratnadass and Ajayi, 1995), *Taylorilygus apicalis* (Snodgrass et al., 1984) and *Closterotomus norwegicus* (Alford, 2014) species are harmful on cotton, olive, clover etc. Apart from these species, it was understood that the other species were not economically harmful and fed on weeds in and around cereals. *Coranus griseus*, *Geocoris megacephalus* and *Deraeocoris pallens* are known to be predators of many insects. Furthermore, the *Lygaeosoma anatolicum* Seidenstücker, 1960 (Lygaeidae) species identified in this study is new record for the island of Cyprus.

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