

Contribution to the study on the Turkish Pentatomoidea (Heteroptera). V. Sciocorini Bergrøth (Pentatomidae)

N. Lodos*

F. Önder*

Summary

This paper deals with the Turkish fauna of Sciocorini (Pentatomidae) which were collected by us in the different parts of Turkey. In this work altogether 22 species belong to 3 genera are treated of which 2 species namely, *Sciocoris (Aposciocoris) homalonotus* Fieb. and *S. (Aposciocoris) microphthalmus* Flor are new records for Turkey and, one species, *Sciocoris (Aposciocoris) atifi* n.sp. is described. The types are deposited in our museum.

Introduction

This paper is a continuation of Turkish Pentatomoidea and treats the tribe of Sciocorini within the family of Pentatomidae.

The species of Sciocorini are rather peculiar group within the subfamily of Pentatominae. They are small and flattened insects and can be easily recognised by these characteristics. As other groups of Pentatomoidea, there is no comprehensive work on them in Turkey. Therefore the aim of this paper is to give the list of known species occurring in this country together with the distribution and other data of each species involved.

The Turkish tribe of Sciocorini consists of these genera namely *Sciocoris*, *Menaccarus* and *Dryoderes*. From these, the species of the first and second genera are rather ground bugs, specialised generally for a life in dry sandy, coarse sandy and stony places. Individuals can be found generally near the plant's roots or seen walking on the ground. They are phytophagous (mostly also polyphagous) and feed on the seeds that dropped on the ground. Some of them may feed on leaves, stems, flowers and pods. Their injuries on the

* University of Ege, Faculty of Agriculture, Izmir/Turkey.

plants are negligible as they are found generally in small numbers. Their host plants are the species of Labiatae, Ericaceae, Euphorbiaceae, Scrophulariaceae and Boraginaceae. Generally they have a single generation a year and pass the winter in adult stage. The third genus, namely *Dryoderes* has a single species and this also occurs largely in Turkey. Its habits are rather different than that of the species of other genera. It is a bug found on the plants rather than on the ground. Its main host plants are the species of *Galium*, especially *G. aparine* (Rubiaceae) and it feeds on the seeds or fruits of these plants. It has a single generation a year and becoming adult in summer.

Tribe : Sciocorini

Dyroderes umbraculatus (F.)

General Distribution : S-and C-Europe, N-Africa, M-East, S-USSR.

Distribution in Turkey : This species has been reported by Horvath (1883) from Bursa; by Puton (1892) from Gaziantep (Meydaniekbez); by Escherich (1897) from Ankara; by Hoberlandt (1955) from Adana (Seyhan : Gavur Dağı) and by Lodos et al. (1978) from Afyon, Bursa (in centrum, İznik), Denizli Edirne, İstanbul (Yalova), İzmir (in centrum, Ödemiş), Kırklareli (Pınarhisar), Kütahya (in centrum, Gediz), Manisa (Demirci), Muğla (Bodrum).

Material examined : Afyon, Amasya (Merzifon), Balıkesir (Erdek, Gönen, Kepsut), Bilecik (in centrum, Gölpazarı), Bolu, Burdur, Bursa (in centrum, İznik, Orhangazi), Çorum, Denizli (Honaz), Edirne, İstanbul (Yalova), İzmir (in centrum, Bornova, Kemalpaşa, Kınık, Menemen, Ödemiş), Kırklareli (Pınarhisar), Konya (Bozkır, Ermenek), Kütahya (in centrum, Gediz), Manisa (Demirci), Muğla (Bodrum), Nevşehir (Ürgüp), Niğde (Aksaray; İhlara), Tekirdağ, Trabzon (Maçka), Zonguldak (Çaycuma, Ulus)-Totally 49 specimens.

Occurrence : Very common but in small numbers.

Biological note : The adults of this species were collected from April to August on the various trees, shrubs and weeds such as *Prunus communis*, *P. armeniaca*, *P. persica*, *Pirus malus*, *Cydonia vulgaris*, *Rosa* sp., *Olea europea*, *Laurus nobilis*, *Cupressus sempervirens*, *Quercus* spp., *Paliurus orientalis*, *Rubus* spp., *Urtica* spp. and *Galium* spp. Among these plants especially *Rubus* spp., *Paliurus orientalis* and *Galium* spp. seem to be the main host plant of this species. Stichel (1961) also stated that *Galium aparine* is the host plant of this species.

Menacarus arenicola (Sch.)

General Distribution : Approximately whole Europe, N-Africa, M-East, W-Asia, s. U.S.S.R.

Distribution in Turkey : This species has been previously recorded from Ankara (Beynam) by Hoberlandt (1955).

Material examined : İzmir (Ödemiş: Bozdağ) - Totally 3 specimens.

Occurrence : Extremely occasional.

Biological note : These three specimens have been collected from May to July under the stones and *Astragalus* sp.

Sciocoris (s. str.) cursitans (F.)

General Distribution : Europe, N-Africa, M-East, Siberia.

Distribution in Turkey : This species has been reported by Horvath (1883) from Bursa ; by Hoberlandt (1955) from Edirne and Kayseri (Erciyes Dağı) ; by Linnavuori (1965) from Bolu (Akçakoca) and by Lodos et al. (1978) from Bilecik.

Material examined : Bursa (Uludağ), Diyarbakır, Elazığ (Sivrice), İzmir (Ödemiş: Bozdağ), Kütahya, Manisa - Totally 38 specimens.

Occurrence : Rare, sometimes in large numbers.

Biological note : Specimens were collected from May to September under the stones and *Verbascum* spp. According to Vidal (1949), Halaszfy (1952), Hoberlandt (1955) and Stichel (1960, 1961), this species can be found upper and down sides of some plants such as *Acantholimon* sp., *Astragalus* sp., *Thymus* spp., *Herniaria glabra*, *Salvia* spp., *Lotus corniculatus* and *Calluna vulgaris*.

Sciocoris (s. str.) deltocephalus Fieb.

General Distribution : C-and S-Europe, M-East, S-USSR, Iran and Turkestan.

Distribution in Turkey : Kiritshenko (1924) recorded this species from Erzincan (Tercan) and Hoberlandt (1955) from Edirne. Tuatay et al. (1972) listed it from Ankara (Gölbaşı). In addition to these, Lodos et al. (1978) also collected this species in Balıkesir (Bandırma), Edirne (İpsala) and İzmir (Ödemiş).

Material examined : Balıkesir (Bandırma), Diyarbakır (Karacadağ, Edir-

ne (İpsala), İzmir (in Centrum. Bornova), Muğla (Marmaris), Niğde (Ulukışla), Van (Muradiye) - Totally 13 specimens.

Occurrence : Common but in small numbers.

Biological note : Adults were collected from April to August under the various plants and stones.

Sciocoris (s. str.) distinctus Fieb.

General Distribution : Approximately whole Europe, N-Africa, M-East, S-USSR, Siberia.

Distribution in Turkey : This species has been previously recorded by Kiritshenko (1918) from Kars (Sarıkamış) and by Hoberlandt (1955) from Ankara (Beynam) and Edirne.

Material examined : Ordu (Mesudiye) - Only 1 specimen.

Occurrence : Extremely rare.

Biological note : This single specimen has been collected in June under the stone.

Sciocoris (s. str.) helferi Fieb.

General Distribution : S-Europe, N-Africa, M-East, S-USSR, Iran, Turkestan.

Distribution in Turkey : This species has been recorded by Kiritshenko (1918) from Kars (Zardanes); by Linnauori (1965) from Kırşehir (Hirfanlı) and by Lodos et al. (1978) from Denizli (Çardak).

Material examined : Elazığ (Palu), İstanbul (Yalova), İzmir (Bornova), Kayseri (Pınarbaşı, Yılanlıdağı), Kırklareli (Vize), Van - Totally 7 specimens.

Occurrence : Common but in small numbers.

Biological note : The specimens were collected from June to August on the ground and under the stones and various plants.

Sciocoris (s. str.) hoherlandti Wgn.

General Distribution : Libya, Lebanon, Israel, Syria, Cyprus, Turkey (Wagner, 1954, 1965 b).

Distribution in Turkey : This species has been previously collected by Seidenstücker (1957) in Kahramanmaraş and by Lodos et al. (1978) in Aydın (Koçarlı) and İzmir (Selçuk).

Material examined : Aydın (Koçarlı), İzmir (Selçuk) - Totally 2 specimens.

Occurrence : Very rare.

Biological note : These two specimens were collected in June on some weeds.

Sciocoris (s. str.) ochraceus Fieb.

General Distribution : Cyprus, Syria, Iraq, Israel, Turkestan, Turkey.

Distribution in Turkey : This species has been listed by Fieber (1861) from Turkey, giving without specific location. Seidenstücker (1958) reported this species from Hatay (Antakya, Iskenderun), İçel (Tarsus), Kahramanmaraş; from Diyarbakır (in centrum, Mermer) by Wagner (1959); and from İzmir (Selçuk : Efes) by Wagner (1966 a).

Material examined : Diyarbakır (in centrum, Çermik, Çınar), Elazığ (Sivrice : Hazar Lake), İzmir (Yamanlar Dağı), Mardin (Idil), Siirt, Van - Totally 11 specimens.

Occurrence : Common but in small numbers.

Biological note : The adults have been collected from May to August on some weeds and *Oryza sativa*, and under the leaves of *Verbascum* sp.

Sciocoris (s. str.) ressli Wgn.

This species has been described by Wagner (1966 b) from the specimens collected from Afyon (Bolvadin). It seems to be a species of endemic distribution.

Material examined : Diyarbakır (Çermik), Kayseri (Erciyes Dağı), Urfa (Hilvalı) - Totally 13 specimens.

Occurrence : Occasional.

Biological note : The adults of this species have been collected from June to August on the various plants including *Astragalus* sp.

Sciocoris (s. str.) sulcatus Fieb.

General Distribution : S-Europe, N-Africa, M-East, S-USSR, Turkestan.

Distribution in Turkey : This species has been recorded by Horvath (1888) from Bursa; by Fahringer (1922) from Kocaeli (Gebze); by Gadeau de Kerville (1939) from İzmir; by Linnavuori (1953) from Kütahya (Gediz); by

Höberlandt (1955) from Ankara (Beynam) and by Lodos et al. (1978) from İzmir (Tire).

Material examined : Ankara (Keskin, Kızılcahamam), Bingöl.. (Solhan), Denizli (Çardak), Diyarbakır, Gümüşhane (Kelkit, Kop Geçidi), İzmir (Bornova, Kemalpaşa, Ödemiş : Bozdağ, Seferihisar, Torbalı, Urla), Kayseri (Himmetdede), Kırklareli (Pınarhisar), Konya (in centrum, Beyşehir, Ereğli); Kütahya, Malatya, Manisa, Mardin, Niğde (Ulukışla), Samsun (Bafra), Siirt (Baykan, Beşiri), Urfa (Siverek), Van (Başkale) - Totally 37 specimens.

Occurrence : Common, but in small numbers.

Biological note : The specimens were collected from January to August under some plants such as *Astragalus* spp., on the soil and on the some plants. In April through May some adults have been also collected by the aerial collector.

Sciocoris (s. str.) umbrinus (Wolff.)

General Distribution : Europe, S-USSR, Iran, Siberia.

Distribution in Turkey : This species has been previously collected by Höberlandt (1955) from Adana (Karataş).

Material examined : İzmir - Only 1 specimen.

Occurrence : Very rare.

Biological note : This single specimen has been collected in October under the stone. Höberlandt (1955) and Stieheli (1960) stated that this species could been found under *Astragalus* sp., *Artemisia* sp., *Plantago* sp., *Peucedanum oreoselinum*, *Thymus chamaedrys*, *Salvia verticillata* and *Calluna vulgaris*.

Sciocoris (Neosciocoris) maculatus Fieb.

General Distribution : Approximately whole Europe, N-Africa, M-East, Turkestan.

Distribution in Turkey : This species has been previously recorded by Höberlandt (1955) from Ankara (İşık Dağı, Moğan Gölü) and by Lodos et al. (1978) from Çanakkale (Gökçeada).

Material examined : Çanakkale (Gökçeada), Çankırı (Eldivan), İzmir (Ödemiş : Bozdağ), Kayseri (Erciyes Dağı), Kırşehir (Hirfanlı), Muğla (Milas) - Totally 7 specimens.

Occurrence : Occasional.

Biological note: The adults of this species have been collected from May to August under some plants such as *Astragalus*, *Sideritis*, *Verbascum*.

***Sciocoris (Neosciocoris) persimilis* Wgn.**

General Distribution : Endemic.

Distribution in Turkey : This species has been described by Wagner (1965 a) from the specimens collected from Ankara-Çesmeköprü and Kızılırmak.

The authors have no representative of this species.

***Sciocoris (Parasciocoris) capitatus* Jak.**

General Distribution : Turkestan, N-Iran, Turkey (Wagner, 1965 b).

Distribution in Turkey : Wagner (1.c.) listed this species from Turkey giving without specific location.

Material examined : Bolu (Mengen), Kastamonu (in centrum, Devrekani), Konya (Akşehir, Beyşehir), Mardin (Nusaybin), Niğde (Ulukışla : Çiftehan). - Totally 8 specimens.

Occurrence : Occasional.

Biological note : The specimens were collected from April to August under the stones, on the soil and on the *Juniperus* and *Gossypium hirsutum*.

***Sciocoris (Parasciocoris) pallens* Klug.**

General Distribution : Egypt, Israel, Syrie, Turkey (Seidenstücker, 1960; Wagner, 1965 b).

Distribution in Turkey : Seidenstücker (1.c.) collected this species from Gaziantep.

The authors have no representative of this species.

***Sciocoris (Parasciocoris) sahlbergi* Wgn.**

General Distribution : Israel, Syria, Lebanon, Turkey (Wagner, 1952; Seidenstücker, 1958).

Distribution in Turkey : Seidenstücker (1958) and Linnavuori (1965) collected this species from Antakya (in centrum, Yayladağ).

The authors have no representative of this species.

Sciocoris (Aposciocoris) homalonotus Fieb.

General Distribution : C-S-Europe, N-Africa, S-USSR, Iran.

Distribution in Turkey : This species constitutes a new record for Turkey.

Material examined : İzmir (Bornova, Ödemiş : Bozdağ), Kastamonu, Mardin (Midyat) - Totally 5 specimens.

Occurrence : Occasional.

Biological note : The adult specimens have been collected from April to June on the soil and under some plants.

Sciocoris (Aposciocoris) luteolus Fieb.

General Distribution : Israel, Syria, Turkey.

Distribution in Turkey : This species has been described by Fieber (1861) from the specimens collected from Thrace. It has been also collected in Hatay (İskenderun) by Horvath (1901); in Adana (Seyhan : Gavur Dağı) by Horvath (1919) and Fahringer (1922) and in Ankara (Baraj) by Hoberlandt (1955).

Material examined : Diyarbakır (Hazro), Elazığ (Palu), Kahramanmaraş (Afşin), Kayseri (Erciyes Dağı), Kırşehir (Hirfanlı, Mucur), Mardin (in centrum, Midyat), Siirt (Kurtalan) - Totally 26 specimens.

Occurrence : Common but in small numbers.

Biological note : The adults have been collected from June to August on the ground and on some plants such as *Oryza sativa*, *Euphorbia* and weeds.

Sciocoris (Aposciocoris) macrocephalus Fieb.

General Distribution : Europe, M-East, S-USSR, Turkestan.

Distribution in Turkey : This species has been recorded by Horvath (1883) in Bursa; by Puton (1892) in Gaziantep (Meydaniekbez); by Horvath (1905) in Kayseri (Yılanlıdağ); by Kiritshenko (1918) in Kars (Zardanes); by Fahringer (1922) in İstanbul (Pendik); by Linnavuori (1953) in İçel (Bulgar Dağı); by Hoberlandt (1955) in Edirne; by Tuatay et al. (1972) in Ankara (Ayaş); by Lodos et al. (1978) in Bilecik, Bursa (Mustafa Kemalpaşa), Isparta, Muğla.

Material examined : Adiyaman (Kahta), Balıkesir (Susurluk), Bilecik, Burdur, Bursa (Mustafa Kemalpaşa), Çanakkale (Eceabat, Gelibolu), Diyarbakır, Erzurum (in centrum, Aşkale), Gaziantep, Gümüşhane (Kelkit), Isparta (in centrum, Eğridir, Keçiborlu), İzmir (Bornova), Kahraman Maraş (Af-

şin), Kütahya, Muğla, Nevşehir (Hacıbektaş), Niğde (Çamardı), Siirt (Kurtalan), Tekirdağ, Van - Totally 87 specimens.

Occurrence : Common sometimes in large numbers.

Biological note : The adults were collected from May to August on some plants such as *Triticum vulgare*, *Oryza sativa*, and on the ground. Halaszfy (1952) stated that this species could be found on *Euphorbia*, *Thymus* and some shrubs. But Stichel (1960) reported that the specimens of this species live around the roots of these plants.

Sciocoris (Aposciocoris) microphthalmus Flor

General Distribution : Europe, S-USSR, Siberia, China, Nearctic Region.

Distribution in Turkey : New record for Turkish fauna.

Material examined : Kütahya, Tokat - Totally 2 specimens.

Occurrence : Very occasional.

Biological note : These two specimens have been collected in July on *Centaurea* sp. and on the ground.

Sciocoris (Aposciocoris) pictus Wgn.

General Distribution : It seems to an endemic species to Turkey.

Distribution in Turkey : Wagner (1959) described this species from the specimens collected from Diyarbakır (Azın Çiftliği, Mermel), Siirt (Batman).

The authors have no representative of this species.

Sciocoris (Aposciocoris) atifi n.sp. (Figs. 1,2)

General shape : Oval, depressed.

Coloration : Yellowish brown with brownish puncturation and dark brown markings. Head yellowish with longitudinal brown markings forming stripes on tylus and in front of the ocelli. 1st, 2nd and 3rd antennal segments yellowish brown, 4th and 5 th ones dark brown. Lateral sides, and disc of pronotum yellow, dark brown puncturation forming some large stripes at the base and lateral sides, calli with dark brown puncturation. Scutellum dark brown except somewhat elevated areas on the middle, base and the apical margin which are yellowish. Corium completely yellow, connexivum yellowish close to sutures of respective segments with blackish spots. Membrane transparent with brown veins. Legs yellow, third tarsal segment yellow brown. Rostrum yellow, apex dark brown. Ventral surface of the body yellow in both sexes. At the lateral sides a broad black longitudinal markings

reached to the last abdominal segment in male. These markings are conspicuous on the ventral surface of thorax, but inconspicuous on gaster in female.

Structural characteristics: Whole body deeply brownish punctured. Genal plates much longer than tylus which appears between them. Lateral margins of head somewhat sinuate in front of eyes, and a notche close of it. Ratio of width of vertex to width of eye, 5.3 in ♂, and 5.8 in ♀. Relative lengths of the respective antennal segments in ♂ and (♀) : 1.0 (1.2), 1.7 (2.0), 1.1 (1.2), 2.0 (2.4), 2.2 (2.5). Rostrum reaching about the middle of hind coxae. Pubescence on the legs and body yellow. Scutellum a little longer than wide, apical margin broadly rounded and somewhat elevated areas on the middle.

Measurements (mm) ♂ (♀) : Total body length, 4.90 (5.59); head : length, 1.08 (1.17), width, 1.44 (1.53); width of vertex between eyes, 1.02 (1.17); diameter of an eye, 0.19 (0.20); length of antennal segments 1st, 2nd, 3rd, 4th and 5th, respectively, 0.28 (0.34), 0.48 (0.56), 0.33 (0.36), 0.59 (0.68), 0.64 (0.70); pronotum : length, 1.03 (1.08), width, 2.47 (2.79); scutellum : length, 1.80 (2.02), width, 1.66 (1.84); corium : length, 1.93 (2.25), width, 2.61 (2.89).

Material examined : Holotype, ♂, TURKEY : Kilis (Gaziantep), 26.6.1978 (Coll. H. Topalkara), on *Vitis vinifera*.

Allotype (♀) and paratypes 6 ♂♂, 1 ♀, same data as holotype; 1 ♂, Siirt (Kurtalan), 4.8.1976, on *Oryza sativa*, (Coll. İ. Serel), 2 ♂♂, Kahramanmaraş (Afşin), 6.6.1973, on weeds, (Coll. N. Lodos).

Location of types : Holotype, allotype and paratypes are in the collection of Plant Protection Dept., Faculty of Agriculture, University of Ege, İzmir, Turkey.

Distribution : Known only from the type localities which are southeastern part of Turkey.

Comparative notes : This new species is closely related to *S. safavii* Hob. 1959 from which can be easily distinguished by the following characteristics :

Characteristics	<i>S. safavii</i>	<i>S. atifi</i> n.sp.
1) Length of body	4.4 (♂), 6.0-6.2 (♀)	4.90 (♂), 5.59 (♀)
2) Scutellum	— same length about corium	— longer than the apex of corium
	— Apex rounded	— apex somewhat pointed.
3) Pygophore	As shown in Fig. 2 b	As shown in Fig. 2 a

Derivatio nominis: It is a pleasure to name this species after Mr. Atif Atilla who is a friend of us and one of the most eminent Turkish Agronomist.

Acknowledgements

The authors wish to thank to Dr. L. Hoberlandt from Praha for sending the types of *Sciocoris safavii* Hob. for comparaison. Thanks are also due to Mrs. R. Duman for drawings.

Özet

Türkiye Pentatomoidea (Heteroptera) üstfamiliyası üzerinde araştırmalar.

V. Sciocorini Bergroth (Pentatomidae)

Bu makalede, yurdumuzun değişik yörelerinden toplanmış olan Sciocorini fauna'sı ele alınmıştır. Araştırmalar sonucunda bu tribünün yurdumuzda 3 cins ve 22 türle temsil edildiği saptanmıştır. Bu türlerden *Sciocoris (Aposciocoris) homalonotus* Fieb. ve *S. (Aposciocoris) microphthalmus* Flor'un yurdumuz faunası için yeni kayıt olduğu da belirlenmiştir. Ayrıca *Sciocoris (Aposciocoris) atifi* n.sp.'nin orijinal deskripsiyonu da verilmiştir. Yeni tür ait olan Holotype ve Paratype'lar Bölümümüz koleksiyonlarında saklanmaktadır.

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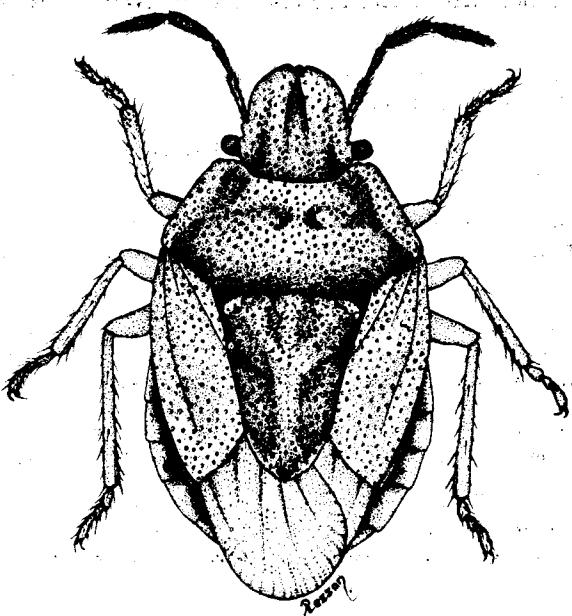


Fig. 1. *Sciocoris atifi* n.sp. (Holotype) (♂)

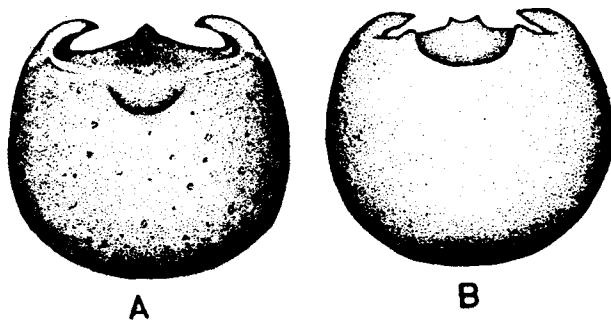


Fig. 2. Pygophore of *S. atifi* (A) and of *S. safavii* Hob. (B)
(Fig. 2 B after Wagner, 1965 b).