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SOME HEMIPTERA-HETEROPTERA COLLECTED IN NORTH AND EAST IRAQ.

By

LUDVÍK HOBERLANDT

Národní museum, zoologické oddělení, Praha.

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Dr. V. Kálalová di Lotti, in the course of her stay in Iraq, visited several places in the northern and eastern border areas of Iraq, where she collected a small but interesting material of Heteroptera. The material comes from four localities in these areas, and is deposited in the collections of the National Museum (Department of Zoology) in Praha.

1. Karagan near Hanekin in the Djebel Hamrin (about 150 km north of Baghdad) in the province of Kirkuk (East Iraq).
2. Badawa in the province of Erbil (North-eastern Iraq).
3. Bishabur, the border of Iraq, Turkey and Syria, North of Mosul.
4. Belek Sindjar in the Djebel Sindjar, in the western part of the province of Mosul, about 50 km from the Syrian frontier.

Biotopes of these four localities are generally characterized after E. P. WILTSHIRE¹⁾ as follows.

Belek Sindjar, Bishabur and Karagan near Hanekin belong to division 3. — Desert and steppes. In these territories of Iraq the desert is stony, i. e., a steppe desert. On some desert mountains in this desert vestiges of pistaccio woods survive.

Badawa belongs to WILTSHIRE's division 2. — Middle heights (either wooded hills or hilly steppe). This territory is characterized by various degrees of devastation with a typical population of steppe species.

The following table gives summary of biotopic and faunistic elements of some *Heteroptera* collected in the deserts and steppes of the North and East of Iraq.

¹⁾ E. P. WILTSHIRE: Insect Biotopes in Syria, Iraq and Iran. — Entomologist's Record, Vol. 52, pp. 43—52, 1940.

	Stony desert and steppe desert, —200 m.	Woodland with xerophytic association, —1500 m.	Either wooded hills or hilly steppe	Eremian elements of the Turano-Iranian section	Mediterranean elements of the Oriental group	Palaeomediterranean elements	Angaran elements with southern extension	Holarctic element	Cosmopolitan element
<i>Odontotarsus angustatus</i> JAK.	+			+					
<i>Carpocoris pusio</i> KOL.	+			+					
<i>Liorhyssus hyalinus</i> (FAB.)	+								+
<i>Stictopleurus abutilion</i> (ROSSI)		+							
<i>Lygaeus equestris</i> (LIN.)	+						+		
<i>Nysius cymoides</i> (SPIN.)	+					+			
<i>Nysius graminicola karaganus</i> ssp. n. .		+		?					
<i>Piocoris erythrocephalus</i> (Le P. S.)	+		+			+			
<i>Macroplax fasciata</i> (H. SCH.)	+					+			
<i>Gampsocoris punctipes</i> f. <i>pallida</i> n....			+	?					
<i>Serenthia atricapilla</i> SPIN.	+					+			
<i>Nabis ferus</i> (LIN.)	+	+						+	
<i>Orius pallidicornis</i> (REUT.)		+	+			+			
<i>Orius albidipennis</i> (REUT.)			+			+			
<i>Megacoelum brevistre</i> REUT.		+		+					
<i>Pararagmus annulicornis</i> (REUT.)			+	+					
<i>Campylomma diversicornis</i> REUT.	+		+		+				
<i>Auchenocrepis reuteri</i> JAK.		+			+				
<i>Tuponia punctipes</i> REUT.	+			+					

Fam. Pentatomidae

Odontotarsus angustatus JAKOVLEV, 1883

1 ♀ — Bishabur, 1. IX. 1930.

Distribution: Turkestan, Turkoman SSR. This is an Eremian element of the Irano-Turanian section.

Carpocoris pusio KOLENATI, 1846

1 ♀ — Bishabur, 1. IX. 1930.

Distribution: Caucasus, Transcaspia, Turkestan. Probably an Irano-Turanian element.

Fam. Coreidae

Liorhyssus hyalinus (FABRICIUS, 1794)

1 ♂ — Bishabur, 1. IX. 1930.

Distribution: Cosmopolitan (except in cold countries). Apparently a typical Mediterranean species.

Stictopleurus abutilion (ROSSI, 1790)

1 ♀ — Belek Sindjar, VIII. 1931.

Distribution: Almost the whole of Europe, extending as far north as Finland; Caucasus, Syria, Siberia, Algeria, Canary Is. and Madeira. This seems to be an Angaran species with a southern extension across the Mediterranean.

Fam. Lygaeidae

Lygaeus equestris (LINNAEUS, 1758)

1 ♂ — Bishabur, 1. IX. 1930.

Distribution: common European form, N. Africa, Middle and South Russia, Caucasus, Turkestan, Siberia, Japan and also the Oriental element — it is an Angaran element with a southern extension.

Nysius cymoides (SPINOLA, 1837)

Bishabur, 1. IX. 1930 and Belek Sindjar, VIII. 1931. A great number of ♂♂ and ♀♀ from both localities.

Distribution: S. France, Spain, Madeira, Italy, S. Austria, Czechoslovakia (Moravia), Hungary, Roumania, Yugoslavia, Bulgaria, Greece, Syria, Tauria, Transcaucasia, Turkestan, Egypt. A Mediterranean species with a north-eastern range.

Nysius graminicola karaganus ssp. n.

(Fig. 1).

Female. Length (to the apex of hemielytra) 4,1 mm. Width (across humeral angles) 1,3 mm. General colour pale stramineous, shining, with dark ochreous markings on head, pronotum, sternum and abdomen.

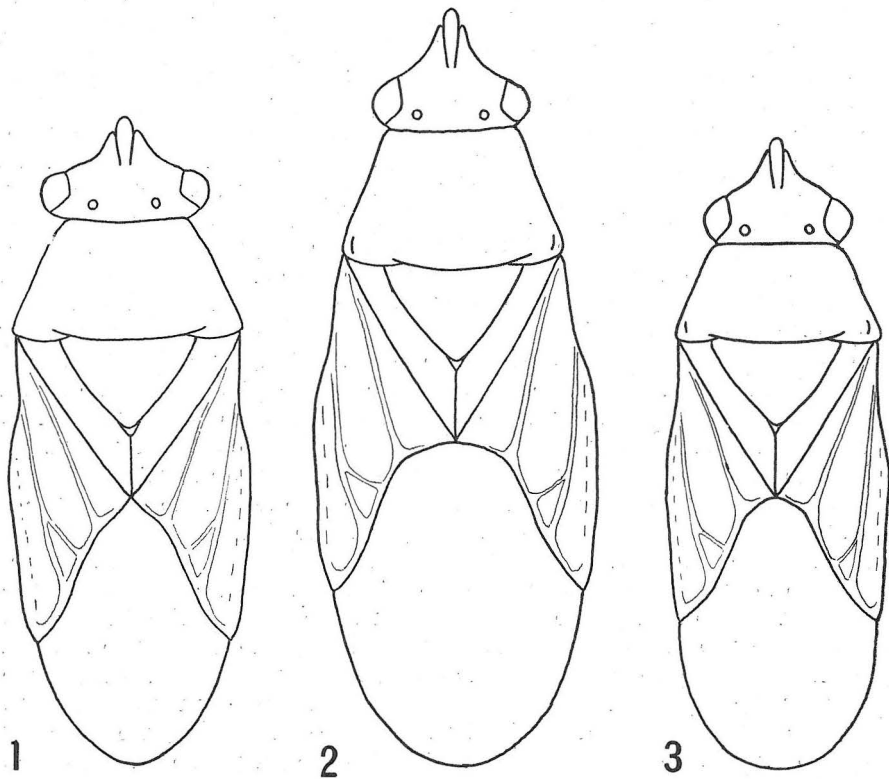


Fig. 1: *Nysius graminicola karaganus* ssp. n., female (holotype). Fig. 2: *Nysius graminicola graminicola* (KOLENATI), female (type). Fig. 3: *Nysius graminicola graminicola* (KOLENATI), male (type).

Colour of the head pale yellowish, the base of lower part, bucculae and a callosity in the middle on the base of vertex stramineous, paler round the eyes; lateral margins of clypeus and an oblique stripe on each side of head, reaching from the margin of the pronotum across the ocelli to the base of the antennae brownish; eyes fuscous, ocelli brownish; rostrum yellowish, the fourth segment in the distal part fuscous; antennae pale brownish-yellow. Pronotum pale yellowish, in anterior fifth with an ochreous transversal impression, on sides slightly sinuated and reaching the anterolateral angles of the pronotum, in the middle distinctly interrupted by a short longitudinal carine. Sternum yellowish, the middle part of mesosternum and metasternum brownish, the posterior margins of pro-, meso- and metapleuron and acetabula stramineous. Scutellum brownish-yellow, irregularly brownish flat punctate except for the longitudinal carine and sides. Hemielytra hyaline, with pale longitudinal venation of corium, membranal commissure with a fuscous spot on its apex. Dorsum pale brown, venter yellowish, one great ochreous spot on each of the first two ventral segments, other segments irregularly spotted. Legs pale yellowish, ventral surface of femora especially in distal part brownish spotted; apices of first and third tarsal segment infuscated.

Head (across eyes) distinctly wider than long (26 : 17)²), discus of head almost flat and distinctly declined and narrowed towards the apex; seen from the side as long as high at the base (17 : 17); jugae distinctly shorter, do not reach the apex of clypeus; bucculae narrow, occupying nearly the whole length of the head, gradually decreasing in height posteriorly; eyes exserted; antennae long and slender, basal segment robust, towards the apex gradually thickened, second and third segments slender, linear, their apices slightly thickened. Segments one to third 7 : 20 : 15 (fourth segment missing in the type); antennae covered with a short pale pubescence. Rostrum slender and long, reaching the middle of the second abdominal segment; segments one to fourth 15 : 15 : 16 : 14. Discus of the head irregularly roughly and brownish punctured, puncturation of lower part rather regular and pale; head covered with pale very short and appressed pubescence. Pronotum distinctly wider than long (35 : 21), in the middle as long as anteriorly broad (21 : 21); pronotum towards the apex distinctly narrowed, lateral sides moderately sinuated, anterior margin slightly excavated, anterior angles subacute; humeral angles rounded and slightly callosity-like elevated and on inner side separated by slightly oblique depression; discus of pronotum moderately convex, deflexed towards the apex and in the anterior fifth with a transversal flat impression in the middle distinctly interrupted by a longitudinal callosity. Pronotum with a regular flat brownish puncturation, except transversal impression and callosities, scutellum broader than long (20 : 16), sides slightly rounded, apex subacute; basal part moderately convex, in the middle with a longitudinal smooth carine reaching from the base to the apex; brownish punctated except the carine. Pronotum and scutellum with short pale pubescence. Sternum with brown puncturation, except posterior margins of respective pleurites; posterior margin of metapleuron concave, posterior angle rectangular. Hemielytra twice longer than broad

²) 1 unit equalling 0,038 mm.

(75 : 38), extending well beyond the apex of the abdomen, lateral sides (♀) nearly parallel, in the basal part constricted and with numerous pale erect hairs; membranous sutura sinuated; corium and especially the whole clavus with short dense appressed pale pubescence. Dorsum flat and smooth. Abdomen (♀) keel-like arched with short pale pubescence. Legs straight, with pale short, on the apices of tibiae rather longer pubescence.

1 ♀ (*holotype*) and 1 ♀ (*paratype*) — Karagan near Hanekin, Djebel Hamrin, 6. VII. 1930.

The new subspecies is very closely allied to the typical form — *Nysius graminicola graminicola* (KOLENATI, 1845)³, but differs by its

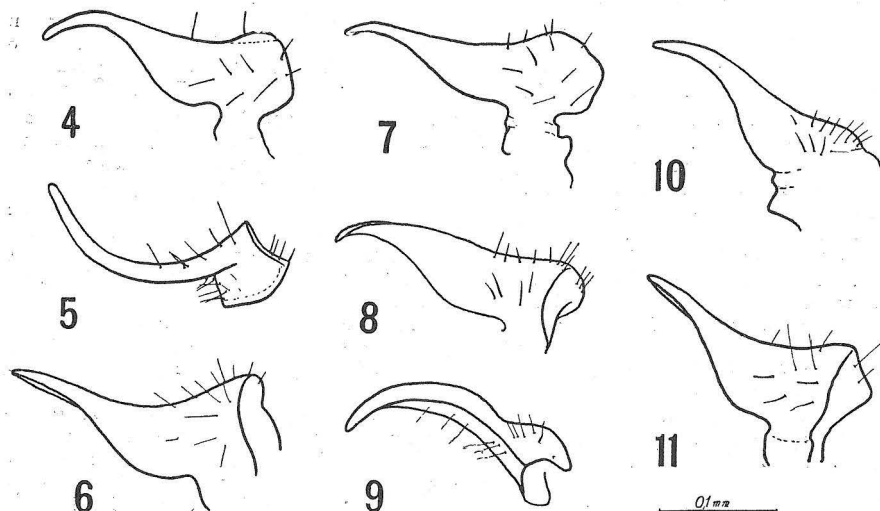
³) Though this species is listed in a number of faunistic and systematic papers it has been rather often confused and sometimes incorrectly determined. Through the kindness of Dr. Max Beier I had the opportunity to examine KOLENATI's types, which are deposited in the collections of the *Naturhistorisches Museum (Zoologische Abteilung)* in Wien. I give therefore a re-description of the species *Nysius graminicola* (KOLENATI 1845) according to the types, a male from "Karabach" and a female from "Elisabethpol" (Transcaucasia).

Male (fig. 3). Length (to the apex of membrane) 4,33 mm. Maximum width (across hemelytra) 1,33 mm. General colour of body pale brownish-yellow, shining with fuscous shades and black markings on head, pronotum, scutellum, sternum and abdomen; dark punctate, especially on the pronotum. Head pale brownish-yellow on each side with black stripe, obliquely reaching from base of head across ocelli to the basal area of antennae; head yellow laterally black, antenniferous tubercles exteriorly with black spot. Antennae pale brownish-yellow, in the basal third of first antennal joint above with a small fuscous spot, second and third joints on the base slightly infuscated. Pronotum pale brownish-yellow, in the front slightly brownish; pronotum in the anterior fifth with a dark coloured transversal impression, directed towards the anterolateral angles of pronotum and laterally slightly sinuated; the impression in the middle subinterrupted and branched backwards. Scutellum brownish-yellow, on the base slightly infuscated, in the middle with a longitudinal black stripe, reaching from the margin of the pronotum nearly to the middle of the scutellum. Rostrum yellowish, apical joint brownish. Anterior part of prosternum for the most part black, only anterior margin and posterior third of propleuron pale brownish-yellow, mesopleuron black, posterior part and a longitudinal stripe reaching from acetabula to the anterior margin yellowish; metapleuron brownish-yellow with a black longitudinal stripe near the upper margin and reaching only the vertical furrow dividing the metapleuron; vertical furrow in the middle narrowly black; acetabula stramineous. Dorsum black, posterior and longitudinal sutura of respective tergites yellowish-brown. Connexivum black and brown marble-like, longitudinal and transversal sutura of respective segments yellowish. Hemelytra hyaline with pale longitudinal veins. Membranous sutura with three fuscous spots. Three first ventrites black, the others on sides marble-like brownish; genital segment brownish, apically fuscous. Legs brownish-yellow, femora more or less irregularly brownish spotted, tibiae basally and apically slightly brownish, apex of the first tarsal joint and the whole third brownish.

General outline elongate oval, nearly parallel-sided. Head (across eyes) distinctly wider than long (25 : 18), head distinctly declined and strongly narrowed towards the apex; clypeus narrow surpassing the jugae; eyes strongly exserted. Bucculae occupying $\frac{1}{4}$ of the whole length of head, elevated anteriorly, gradually decreasing in height towards the apex. Rostrum slender, reaching between posterior coxae; joints one to fourth 12 : 14 : 13 : 12. Antennae slender, first antennal joint rather club-shaped, second towards the apex slightly dilated. Joints one to third 9 : 19 : 15 (fourth joint in typical specimens missing). Antennae with short silvery pubescence. Discus of the head slightly convex, rugose with short pale pubescence. Pronotum distinctly wider than long (32 : 19), nearly as long as the of the anterior margin (19 : 20), towards the apex gradually narrowed (basal margin to anterior margin 32 : 20); discus of pronotum slightly convex, towards the front distinctly declivous; deeply and rather regularly brownish punctated, except a transversal black impression in the anterior fifth of the pronotum; humeral angles of pronotum slightly callosity-like elevated and separated from basal margin of pronotum by a short oblique depression; basal margin of pronotum in the middle with slightly callosity-like tubercle. Scutellum triangular, broader than long (20 : 14), slightly convex, in the middle modera-

slightly smaller size and different proportions, in the general colour being much paler and of ochreous shade. Antennae of the new subspecies slender, and the proportions of the respective joints are distinctly longer. Rostrum distinctly longer, surpassing posterior coxae and reaching the middle of the second visible ventrite. Membranal suture slightly sinuated and only on its apex infuscated.

tely elevated and carinated towards the posterior angle; lateral margins moderately rounded, posterior angles subacute; scutellum deeply brownish punctured except the middle elevation and apical longitudinal carine. Pronotum and scutellum with short pale pubescence. Sternum irregularly brownish punctured and with short pale appressed pubescence; metapleuron divided by a vertical furrow into anterior strongly punctured and narrow posterior unpunctured areas; posterior margin of metapleuron sinuated, its outer angle moderately produced. The ostiolar canal continuing as an elevated lobe. Hemelytra shi-



Nysius graminicola graminicola (KOLENATI). Fig. 4: Right paramere, lateral aspect (specimen from Caucasus). Fig. 5: Right paramere, dorsal aspect (specimen from Caucasus). Fig. 6: Left paramere, lateral aspect (specimen from Caucasus). Fig. 7: Right paramere, lateral aspect (specimen from Palermo, Sicily). Fig. 8: Left paramere, lateral aspect (specimen from Palermo). Fig. 9: Left paramere, dorsal aspect (specimen from Palermo). Fig. 10: Right paramere, lateral aspect (specimen from South France). Fig. 11: Left paramere, lateral aspect (specimen from South France).

ning, hyaline, covered with short sparse pale pubescence, distinctly surpassing the tip of abdomen; costal margin of corium in the posterior part moderately arched, in basal third narrowed and with numerous long erect bristles; corial venation of the same colour as the corium; membranal commissure distinctly sinuated, with three fuscous spots. Membrane wholly transparent, strongly shining. Legs slender, femora and tibiae straight, with short pale pubescence.

Female (fig. 2). Length (to the apex of membrane) 4.67 mm. Maximum width (across hemelytra) 1.6 mm. Similar to male, rather stouter. Pronotum strongly convex, longer than wide in anterior part (23 : 21) and rather narrowed towards the apex (38 : 21). Hemelytra wider than in male and costal margin distinctly arched. Membrane surpassing the tip of abdomen by longer part.

I compared with KOLENATI's types the specimens belonging to *Nysius graminicola* (KOLENATI 1945) and collected at various places in the Mediterranean area and in the Caucasus. None of the specimens which I was able to compare with the types show apart from a more or less darker pigmentation any special deviations. Figs. 4—11 show the parameres of some specimens from different localities.

For the species characterized by a corial venation without darkened spots, found in the Middle East, I give the following key:

1. Basal margin of hemielytra without any long erect bristles. Bucculae reaching only to the basal third of the length of the head, in their whole length of the same height, posteriorly truncated. ***Nysius senecionis* (SCHILLING)**
 Basal margin of hemielytra with numerous long erected bristles. Bucculae reaching nearly or wholly to the base of the head. 2.
2. Pronotum with fine puncturation, finer posteriorly. Bucculae reaching to the base of the head and in their whole length of the same height, apically truncated. ***Nysius immunis* (WALKER)**
 Pronotum with rough regular puncturation. Bucculae reaching nearly to the base of the head, distinctly elevated anteriorly, gradually decreasing posteriorly. ***Nysius graminicola* (KOLENATI)** 3.
3. Size large. Pronotum (♀) towards the apex strongly narrowed. Antennae stouter and proportion of respective joints shorter. Rostrum reaching to between the posterior coxae. ***Nysius graminicola graminicola* (KOL.)**
 Size smaller. Pronotum (♀) towards the front moderately narrowed. Antennae slender and proportions of respective joints longer. Rostrum long, surpassing posterior coxae and reaching the middle of the second abdominal segment. ***Nysius graminicola karaganus* ssp. n.**

***Piocoris erythrocephalus* (LE PELETIER et SERVILLE, 1825)**

Bishabur, 1. IX. 1930 — Belek Sindjar, VIII. 1931. From both localities in a great number of specimens (♂♂ and ♀♀).

Distribution: Spain, S. France, Italy, Czechoslovakia (Slovakia), Hungary, Roumania, Yugoslavia, Bulgaria, Greece, Anatolia, S. Russia, Caucasus, Syria, Palestine, Algeria, Morocco. A Palaemediterranean species.

***Macroplox fasciata* (HERRICH SCHAEFFER, 1835)**

1 ♀ — Bishabur, 1. IX. 1930.

Distribution: Spain, S. France, Corsica, Italy, S. Austria, Czechoslovakia, Hungary, Yugoslavia, Bulgaria, Greece, Tauria, Caucasus, Turkoman SSR, Syria, Tunisia, Algeria, Morocco. A typical Mediterranean element.

Fam. Berytidae

***Gampsocoris punctipes* f. *pallida* n.**

From the typical form this differs by the following characteristics: the whole body of form *pallida* n. is considerably smaller (♂, length 3,36 mm, broad across the humeral angles 0,67 mm; ♀, length 4,38 mm, broad across the humeral angles 0,71 mm), the pronotum is one-coloured, without any black markings as in *forma typica*, also the whole of the sternum is pale and abdomen of ♂ and ♀ in the new form is one-coloured, yellowish. The relative length of the pronotum in the new form is shorter than in *G. punctipes* (GERMAR). The three basal tubercles of the pronotum

tum are rather strong, the apical thicknesses of the first and second antennal joints and those of the femora are less striking.

1 ♂ and 1 ♀ — Badawa, Erbil VI. 1931.⁴⁾

Fam. Tingitidae

Serenthia (Serenthia) atricapilla SPINOLA, 1837

1 ♂ — Bishabur, 1. IX. 1930.

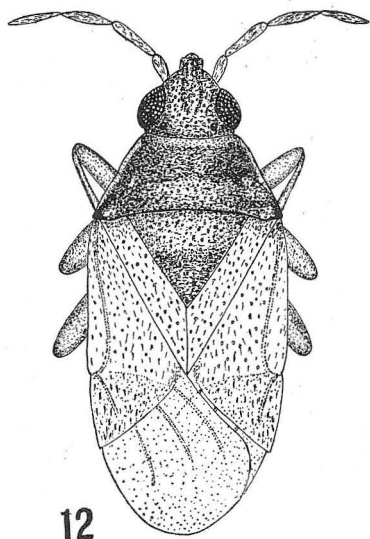
Distribution: Morocco, Algeria, Tunisia, Spain, S. France, Italy, Yugoslavia, Hungary, Roumania, Greece, Anatolia, S. Russia, Caucasus. A Palaemediterranean element.

Fam. Nabidae

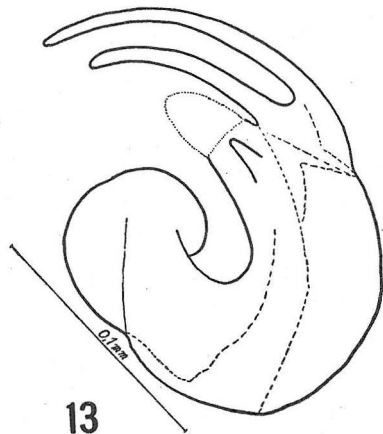
Nabis (Nabis) ferus (LINNAEUS, 1758)

4 ♀♀ — Bishabur, 1. IX. 1930; 1 ♂ — Belek Sindjar, VII. 1931.

Distribution: Europe, Madeira, Siberia, N. Mongolia, Japan, Turkestan, Caucasus, Syria, N. Africa, Canary Is., Madeira and N. America. Species with holarctic distribution.



12



13

Orius albidipennis (REUTER). Fig. 12: General aspect. Fig. 13: Paramere.

Fam. Anthocoridae

Orius pallidicornis (REUTER, 1889)

2 ♂♂ and 2 ♀♀ — Badawa, Erbil, VI. 1931; 1 ♂, 5 ♀♀ — Belek Sindjar, VIII. 1931.

Distribution: Sicily, Corsica, Tunisia, Balearic Is. A Palaemediterranean element.

⁴⁾ I have seen also 1 ♂ from Shaklaw, Kurdistan (N. E. Iraq) and 1 ♀ from Baghdad (Iraq).

***Orius albidipennis* (REUTER, 1884)**

1 ♂ — Badawa, Erbil, VI. 1931; 1 ♀ — Bishabur, 1. IX. 1931.

Distribution: Egypt, North Africa, Canary Is., Palestine, Turkestan; Ethiopian Region. Species of Palaecomediterranean distribution.

Both specimens are rather different in their small size (fig. 12; ♂ 1.45 mm; ♀ 1.55 mm) and of completely stramineous colour of head, antennae, pronotum, scutellum, abdomen, hemielytra and legs. Paramere (fig. 13) of this specimen similar to these of specimens from other parts of Mediterranean.

Fam. Miridae***Megacoelum brevirostre* REUTER, 1879**

1 ♂ — Karagan near Hanekin, Djebel Hamrin, 6. VII. 1931.

Distribution: Turkestan, Iran. This seems to be an Eremian element of the Irano-Turanian section.

***Pararagmus annulicornis* (REUTER, 1879)**

1 ♂ — Badawa, Erbil, VI. 1931.

Distribution: Turkestan. Probably an Eremian element of the Irano-Turanian section.

***Campylomma diversicornis* REUTER, 1878**

Bishabur, 1. IX. 1930; Belek Sindjar, VIII. 1931. From both localities in a great number of ♂♂ and ♀♀.

Distribution: Turkestan, Iran, Caucasus, Greece. A Mediterranean species of the Oriental group.

***Auchenocrepis reuteri* JAKOVLEV, 1876**

1 ♂ — Karagan near Hanekin, Djebel Hamrin, 6. VII. 1931.

Distribution: Greece, Anatolia, Caucasus, Nachitshevan, Transcaspia, Turkestan, S. Russia. A Mediterranean species of the Oriental group.

***Tuponia punctipes* REUTER, 1879**

1 ♂ — Belek Sindjar, VIII. 1931.

Distribution: Turkestan, Iran. Probably an Eremian element of the Irano-Turanian section.