

TOWARDS THE KNOWLEDGE OF THE TERRESTRIAL HEMIPTERA FAUNA OF THE SOUTHERN REGIONS OF THE WESTERN TIEN-SHAN. [USSR, MID-ASIA*)]

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Introduction

Our interest in the hemipterous fauna of the mountain regions and foothills of Tien-Shan is due principally to the fact that this is a natural district which is specific in many respects; and to the fact that few investigators have studied it from the hemipterist's point of view (Arnoldi, 1949; Popov, 1960). Many explorers (V. F. Oshanin, B. K. Grigoriev, A. N. Kiritshenko, N. A. Obuchova, D. N. Kashkarov and others) visited the regions of Western and Eastern Tien-Shan, but there are no special papers on the hemipterous fauna of these regions.

The present paper describes the inspection of the mountain regions and foothills of the Fergana, Tchatkal, Pskem and Ugam ridges (i. e. the Southern part of Tien-Shan) during visits in 1957 and 1958. The main collection was made in the regions of Djalal-Abad (20—26. V. 1957; 30. V. 1957; 1., 4. VI. 1957; 11—14. VI. 1957), Suzak (22, 27—29. V. 1957; 2, 8—10. VI. 1957), Oktyabrskoe (3., 5—7. VI. 1957), Kok-Yangak (16—18. VI. 1957), Bazar-Kurgan, Achi (29—30. V. 1957; 5. VI. 1957), Kizyl-Unkur (4—13. VIII. 1958; 30. VII—2. VIII. 1958) und Utchterek (14. VIII. 1958) — Fergana ridge; Arkit (24. VII.—3. VIII. 1957; 25. VIII. 1957) — Tchatkal ridge; Pskem (5—12. VI. 1958; 20—23. VIII. 1958) — Pskem ridge; Nanay (15. VI. 1958), Syjak (26. V—3. VI. 1958; 19—29. VI. 1958) — Ugam ridge, and also in the walnut forestry state farm of Kara-Alma (20. VI—3. VII. 1957) — Fergana ridge; in the mountain forest reserve of Parkent (7—11. IX. 1957; 28. VIII—4. IX. 1958) — Tchatkal ridge, and in the basins of the Kugart, Karasu, Otuzart, Kara-Unkur rivers (27—29. V. 1958; 23—24. VII. 1958; 10—14. VIII. 1958; 4—13. VII. 1958; 30. VII—2. VIII. 1958; 27—29. VII. 1958; 3—4. VIII. 1958) — Fergana ridge; Khodja-Ata, Aflatun (24. VII—3. VIII. 1957) — Tchatkal ridge; Kaynar-say, Bogutchal-say (26.

*) In Russian scientific literature the geographical term "Middle Asia" is commonly used. By these words we mean an area comprising the Soviet Middle-Asian republics within the USSR, together with the neighbouring regions to the South. The region in question used to be called Turkestan (e. g. in Oshanin, 1906, 1910). In contrast the geographical term "Central Asia" is used to include Mongolia and the adjoining areas of China. In this work, in preference to "Middle Asia" I use the term "Mid-Asia", which construction is more common in the English-speaking countries.

V—3. VI. 1958; 19—29. VI. 1958) — Ugam ridge; Pskem (13—17. VI. 1958) — Pskem ridge and Ugam ridge; Karasu, Kopkatash lakes (20—23. VIII. 1958) — Fergana ridge and Sary-Tchilek (17—23. VII. 1957; 4—30. VIII. 1957) — Tchatkal ridge.

It is quite natural that this investigation does not completely exhaust all the variety of species (which is not the main aim of the study) as the collection was restricted by the short length of the summer season and by the discontinuity and remoteness of the regions in question. The major part of the systematic treatment of Hemiptera was carried out in the Zoological Institute of the Academy of Sciences in Leningrad where I had an opportunity to use the main institute collection. Prof. A. N. Kiritshenko and Dr. I. M. Kerzhner kindly helped me in the determination of the series of species. I would like to take this opportunity to express my gratitude for their kind help. In addition, I want to record my thanks to Dr. G. Seidenstücker (Eichstätt/Bayern, Bavaria, DBR) for sending me his paratypoides of the new species of genus *Emblethis*; and to Prof. K. V. Arnoldi (Institute of Morphology, Moscow) for placing at my disposal some auxiliary material and many valuable methodical remarks. I am indebted also to Dr. L. Hoberlandt (Národní Museum, Praha, Czechoslovakia), Dr. M. Iosifov (Zoological Institute, Sofia, Bulgaria) and Dr. R. J. Wootton (University of Exeter, England) for the checking of my English translation.

A brief historical review of the works on the terrestrial Heteroptera of Mid-Asia, USSR

A large part of the USSR is very poorly investigated from the hemipterist's point of view; the least studied being Mid-Asia, Siberia and the Far East. The most complete faunistic observation has been carried out in the European part of the USSR as a whole, and its separate provinces (Kiritshenko, 1951). In particular, Transcarpatia (Roshko, 1953, 1955, 1956 a, 1956 b, 1957, 1958 a, b, 1959 a, b, c, d), Ukraine (Puchkov, 1961, 1962) and Transcaucasus (Akramovskaya, 1959) have been thoroughly investigated for the last ten years. It is necessary to mention the new work by A. N. Kiritshenko on the Heteroptera of arctic Eurasia (Kiritshenko, 1960). But besides the old reviews on the palaearctic Heteroptera by V. F. Oshanin, 1906, 1910 and 1912) and separate groups of Heteroptera by A. N. Kiritshenko (Kiritshenko, 1913 and 1916) a general account has not been issued for many years. The mentioned reviews, especially the lists by V. F. Oshanin are now out of date and far from complete. They can be used only as a means of a preliminary acquaintance with the species composition of the different regions of Mid-Asia and the general list requires constant study and addition.

V. F. Oshanin published his first special hemipterological paper on Mid-Asia "Zoogeographical characteristic of Turkestan Hemiptera" in 1891. This work contained a detailed zoogeographical analysis and a list of about 540 species of the Mid-Asian Hemiptera.

After the publication of the fundamental works by V. F. Oshanin,

many systematic and faunistic papers on Mid-Asia were issued during the following 50 years. Among them particular attention must be given to the works by the soviet hemipterist A. N. Kiritshenko.

The special series of systematic works under the title "Hemiptera-Heteroptera turanica nova" (Kiritshenko, 1912, 1913, 1914, and 1925) and some other papers (Kiritshenko, 1911 a, 1911 b, 1913, 1922, 1926 and 1929) were published in the period 1911 to 1929.

The faunistic-systematic paper by A. N. Kiritshenko on the terrestrial Heteroptera of Pamir-Alay, which contained the material of the Pamirs expedition in 1928 appeared in 1931, and included a list of 60 species of Heteroptera, the description of 9 new species, and a brief zoogeographical account of the Mid-Asian Hemiptera.

After a break of twenty years a new faunistic work by A. N. Kiritshenko on the hemipterous fauna of the mountain region of Tadjikistan appeared in the separate collection "The Kondara gorge" under the title "Hemiptera and Homoptera" (Kiritshenko, 1951), and included a list of more than 250 species of Heteroptera and over 70 homopterous species, and also an account of the hemipterous fauna of the Southern slope of Gissar ridge.

The next year A. N. Kiritshenko published a big work on Heteroptera of Tadjikistan (Kiritshenko, 1952) in which one can find a brief history of the study of the hemipterous fauna on this country, a summing up of the species composition, as revealed from 1869 to 1948 (over 700 species), and the economical value of the Heteroptera and the description of 4 new genera and 24 new species.

The same year Z. A. Pazhitnova gave an annotated list of 62 species of terrestrial Heteroptera from Uzbekistan (the North slope of Turkestan ridge) and their brief ecological characteristic, in the paper "To the study of Hemiptera-Heteroptera of Guralash juniper reserve".

R. Linnavuori in 1953 gave a list of the palaearctic Heteroptera collected by J. Sahlberg and U. Saales, which included a considerable number of species (53) collected in the territory of Mid-Asia. In this paper he described also new species from this region (Linnavuori, 1953).

A paper by another modern hemipterist, G. Seidenstücker, on the genus *Cymophyes* (Lygaeidae) from Syria and Kazakhstan appeared at the same time.

In 1956 Z. A. Pazhitnova and D. M. Kiranova published a work "To the study of entomological fauna of Kyuren-Dagh", which included in it an ecological-faunistic review of the insects, and in particular the Heteroptera from Southern Turkmenia (Kopet-Dagh).

The new work by A. Kiritshenko on the Mid-Asia Heteroptera under the title "Hemiptera-Heteroptera of the Tigrovaya Balka reserve" appeared in 1959. There is a list of Heteroptera of the South-Eastern part of the foothills of the Gissar based on the materials of many collectors and on the collections of the mentioned author from 1941 to 1957. This list accounts 116 species, from which 3 are new ones.

In the same year I. M. Kerzhner described a new genus *Sacculifer* (type-species *Plagiognathus rufinervis* Jak.) with a new species from

Orenburg, with a distribution covering the Voronezh district, the middle part of the Volga valley, the South Ural, North-West Kazakhstan, East Siberia and North Mongolia.

In 1960 a paper by Y. A. Popov on the terrestrial Hemiptera of Tchatkal ridge was published, in which a brief ecological survey of Heteroptera by vertical zones and a number of species (60 species) found on certain plants were given.

In 1961 and 1962 was published a series of papers devoted partly or completely to Mid-Asia; in the main to Kazakhstan and Tadjikistan. N. N. Muminov is in the process of studying the whole hemipteran fauna of Tadjikistan. In 1961 he published two papers: giving in one (Muminov, 1961a) a faunistic list of 53 hemipteran species from the Darvaz ridge and in the other (Muminov, 1961b) the descriptions of two new species (Miridae and Lygaeidae). Since then he has published one paper more (Muminov, 1962), describing a new genus, *Lepidargyrus* (type-species *Maurodactylus instabilis* Reut.) with a new species.

In 1962 R. B. Asanova published a faunistic work on the Heteroptera of Central Kazakhstan (Asanova, 1962). In it she listed 302 species belonging to 23 families, and analysed the zoogeography and the characteristics of the main faunistic complexes of the investigated zone.

I. M. Kerzhner has also published three papers devoted partly or wholly to Kazakhstan. In the list (Kerzhner, 1962a) he described 13 species in the families Miridae, Lygaeidae and Nabidae, giving detailed accounts of the described species and of some closely related ones. In the second (Kerzhner, 1962b) he revised the genus *Corizus* (Coreidae). In the third (Kerzhner, 1962c) he described a new genus, *Eumecotarsus* (type-species *Plagiognathus breviceps* Reut.), with a new species from Djungarski Alatau; and also discussed the genera *Damioscea* Reut., *Acrotelus* Reut., *Atractotomus* Fieb., *Sthenarus* Fieb. and *Psallus* Fieb.

In conclusion, in addition of the above-cited list of works I wish to mention that the great number of special systematic works and papers of others authors (Fieber, G. Horváth, A. Puton, O. M. Reuter., V. E. Jakovlev and more recently T. Jaczewski, Ed. Wagner, L. Hoberlandt, M. Iosifov, L. Tamanini and H. Lindberg) issued during the last century and dedicated to the descriptions of new species of various families and genera of Heteroptera from Mid-Asia, are not included in the general faunistic reviews.

Eco-faunistic observations

Besides my personal observations on the ecology and distribution of the below-mentioned species from the Mid-Asian part of the USSR, I cite in this review a series of works devoted to the Mid-Asian Hemiptera of the USSR. In order to avoid repetition of the dates of collection, which are listed in the introduction of the present investigation, I will mention only the place where these species were discovered. The number of Heteroptera is indicated only if fewer than 15 specimens. The word "neighbourhood" and "valley" are usually omitted.

CIMICIDAE

CIMICINAE

Cimex lectularius L.

Djalal-Abad, 700—900 m.

In the habitable premises.

This species is widely distributed through the whole of Mid-Asia.

Distribution. Cosmopolitan.

ANTHOCORIDAE

ANTHOCORINAE

Anthocoris pilosus Jak.

Fergana ridge: Kara-Alma, 1700—1800 m.; Kizyl-Unkur, 1800 m.; Kara-Unkur, 1800—2220 m.; pass Kenkol, 3200—3600 m.; Karasu lake, 2000—2200 m. Tchatkal ridge: Arkit, 1600—1900 m.; Sary-Tchilek, 1900—2800 m. Pskem ridge: Pskem, 1800 m. Ugam ridge: Syjak, 1600—1900 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed and wild apple-tree forests, sparse fir and silver fir forests, subalpine meadows, along rivers. It is predatory on aphids and Thysanoptera. On *Atraphaxis pyrifolia*, *Populus boleana*, *Tamarix* sp., and also on *Culutea persica* and *Polygonum* sp. (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR Central Tien-Shan — Przhevalsk (Oshanin, 1906); Golodnaya Desert (Yachontov, 1962); Turkestan ridge — Guralash reserve (Pazhitnova, 1952); Pamir — Yazgulem ridge (Kiritshenko, 1931); Gissar ridge — Kondara, Kvak, Ruidasht, Ziddy, Gushary, Kutarm-Akbu (Kiritshenko, 1951a) and Darvaz ridge (Muminov, 1961a).

Distribution. Central and Southern Europe, North Iran, the European part of the USSR, Caucasus, Mid-Asia.

Orius (Heterorius) niger (Wolff)

Ugam ridge: Syjak, 2 ♂♂, 1600 m.

In the steppe and mountain steppe formations, the mixed forest, along rivers. On *Verbascum* sp. and *Artemisia vulgare*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962); Central Tien-Shan — Iliysk, Kok-Djayak (Oshanin, 1906) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Europe, North Africa, Israel, Syria, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia.

Orius [s. str.] ribauti Ed. Wagner

Djalal-Abad: 2 ♂♂; Suzak 1 ♂ and 1 ♀, 800 m. Tchatkal ridge: Parkent reserve, 2 ♂♂ and 10 ♀♀, 1400 m. Ugam ridge: Syjak, 2 ♂♂, 1600 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone. On *Atraphaxis pyrofolia*.

This species has been recorded in the Mid-Asian part of the USSR.
Distribution. Dalmatia, Mid-Asia, Siberia (Irkutsk).

MIRIDAE

MIRINAE

***Stenodema (Brachystira) calcaratum* (Fall.)**

Fergana ridge: Kara-Alma, 3 ♂♂ and 1 ♀, 1700 m. Tchatkkl ridge: Arkit, 3 ♀♀, 1600—1800 m.; Sary-Tchilek lake, 1 ♂ and 1 ♀, 200 m. Pskem ridge: Pskem 2 ♂♂, 1700 m. Ugam ridge: Syjak, 2 ♂♂ and 4 ♀♀, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On Graminea.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir moutain (Asanova, 1962); Samarkand (Reuter, 1887), Turkistan ridge: — Guralash reserve (Pazhitnova, 1952) and Gissar ridge — Kondara, Kvak, Ruidasht (Kiritshenko, 1951a) and "Tigrovaya Balka" reserve (Kiritshenko, 1959).

Distribution. Palaearctic region, and also Ethiopian region.

***Stenodema (Brachystira) trispinosum* Reut.**

Fergana ridge; Kara-Alma, 1 ♂ and 4 ♀♀, 1600—1800 m. Ugam ridge: Syjak, 2 ♂♂ and 6 ♀♀, 1600—2000 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On Graminea.

This species has been recorded in the Mid-Asian part of the USSR only from Tien-Shan (Oshanin, 1906).

Distribution. Palaearctic region, and also Nearctic region (Canada, USA).

***Stenodema* (s. str.) *virens* (L.)**

Djalal-Abad, 2 ♀♀, 800 m. Fergana ridge: Kara-Alma 1 ♂ and 3 ♀♀, 1700 m. Ugam ridge: Syjak, 3 ♀♀, 1600 m.

In the semidesert, steppe and mountain steppe formations. On Graminea.

This species has been recorded in the Mid-Asian part of the USSR by O. M. Reuter (Reuter, 1887).

Distribution. Palaearctic region, and also Nearctic region (Canada, USA).

***Stenodema* (s. str.) *virens turanicum* (Reut.)**

Djalal-Abad, 800 m.; Suzak, 900 m.; Kok-Yangak, 1000 m. Fergana ridge: Kara-Alma, 1700—2000 m.; Kizyl-Unkur, 1800 m.; Kara-Unkur, 2200 m.; Atchi, 1500 m. Tchatkal ridge: Arkit, 1200—1700 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1700 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest. On *Poa nemoralis* and *Triticum* sp., and also on *Panicum*, *Agropyron*, *Hordeum* and *Zea* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962), Ugam ridge — Humsan; Turkestan ridge — Shahimardan (Oshanin, 1906), Guralash reserve (Pazhitnova, 1952); Samarkand district; Kopet-Dagh ridge — Firyuza (Oshanin, 1906).

Distribution. Iraq, Turkey, Iran, Afghanistan, Transcaucasus, Mid-Asia.

***Stenodema* (s. str.) *laevigatum* (L.).**

Djalal-Abad, 800 m.; Suzak, 800 m.; Oktyabrskoe, 900 m. Fergana ridge: Kara-Alma, 3 ♂♂ and 1 ♀, 1800 m.; Kara-Unkur, 2 ♀♀, 2000 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan (Oshanin, 1906).

Distribution. Palaearctic region.

***Stenodema* (s. str.) *holsatum* (Fabr.)**

Fergana ridge: Kara-Alma, 1 ♂ and 4 ♀♀, 1800 m.; Kara-Unkur, 3 ♀♀, 2000 m. Pskem ridge: Pskem, 4 ♂♂ and 2 ♀♀, 1500—1700 m.

In the steppe and mountain steppe formations, the mixed forest. On *Sorghum halopense*.

This species has been recorded in the Mid-Asian part of the USSR only from Samarkand (Oshanin, 1906).

Distribution. Europe, North Africa, Turkey, the European part of the USSR. Caucasus, Mid-Asia, Siberia, Kamtchatka, the Far East.

***Notostira erratica* (L.)**

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 900—1200 m. Fergana ridge: Kara-Alma, 1800 m. Tchatkal ridge: Arkit, 1200—1600 m. Ugam ridge: Syjak, 1300—1800 m.; Nanay, 2000—2300 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the subalpine meadow, along rivers. On Graminea.

This species has been recorded in the Mid-Asian part of the USSR from the whole region.

Distribution. Palaearctic region.

***Trigonotylus ruficornis* (Geoff.)**

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 900—1200 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 1200 m. Fergana ridge: Kara-Alma, 1700—2000 m.; Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1900—2200 m. Schatkal ridge: Arkit, 1200—1800 m.; Parkent reserve, 1400—1600 m. Ugam ridge: Syjak, 1300—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the subalpine meadow, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan and Turkmenia (Oshanin, 1906), Gissar ridge — Ruidasht, Gazin (Kiritshenko, 1951a) "Tigrovaya Balka" reserve (Kiritshenko, 1959), South-Western Turkmenia Kyuren-Dagh mountain (Pazhitnova and Kiranova, 1956) and Darvaz ridge (Muminov, 1961a).

Distribution. Palaearctic region, and also Nearctic region (Alaska, Canada, USA).

***Trigonotylus pulchellus* (Hahn)**

Fergana ridge: Kara-Alma, 2 ♂♂ and 2 ♀♀, 1700—1900 m. Ugam ridge: Syjak, 1 ♂ and 3 ♀♀, 1600 m.

In the steppe and mountain steppe formations. On Graminea.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962), South-Western Kazakhstan — Biylikul lake (Oshanin, 1906), Gissar ridge — Kondara (Kiritshenko, 1951a) and South and Western Turkmenia — Kyuren-Dagh mountain (Pazhitnova and Kiranova, 1956), Krasnovodsk (Oshanin, 1906).

Distribution. Central and Southern Europe, North Africa, Israel, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

***Leptopterna ferrugata* (Fall.)**

Ugam ridge: Syjak, 1 ♂ and 2 ♀♀, 1700 m.

In the steppe and mountain steppe formations. On Graminea.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962), the Samarkand district, Tashkent and Frunze (Oshanin, 1906), and also from the Zeravshan Valley — Yagnob (Reuter, 1887) and Gissar ridge — Kondara (Kiritshenko 1951a).

Distribution. Palaearctic region, and also Nearctic region.

***Phytocoris kirgisicus* Y. Popov**

Fergana ridge: Kizyl-Unkur, 1 ♀, 1800 m.; Kara-Unkur, 1 ♀, 2500 m.

In the tree-shrub zone, and also in the subalpine meadow. It lives on leafy trees: *Acer turkestanica* and *Betula tienschanica*.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Mid-Asia.

***Phytocoris confinis* Y. Popov**

Ugam ridge: Syjak, 1 ♂, 1700 m.

In the tree-shrub zone.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Mid-Asia.

Adelphocoris lineolatus (Goeze)

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 900—1200 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 1200 m. Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1600—2500 m.; Karasu lake, 1800—2000 m.; Kara-Unkur, 1600—2500 m. Tchatkal ridge: Arkit, 1400—1800 m.; Sary-Tchilek, 1900—2200 m. Pskem ridge: Pskem, 1500—1800 m. Ugam ridge: Syjak, 1200—1800 m.; Nanay, 1600—2200 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers. On *Trifolium* sp., *Hyssopus seravschanicus*, *Nepeta pannonica*, *Origanum tyttanthum*, and also on *Perovskia*, *Oxythropsis*, *Eremurus* and *Artemisia dracunculus* (Pazhitnova, 1952). It harms the cotton.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Palaearctic region, and also Nearctic region.

Adelphocoris jakovlevi (Reut.)

Ugam ridge: Syjak, 5 ♂♂ and 7 ♀♀, 1500—1700 m. Pskem ridge: Pskem, 3 ♀♀, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On Graminea, Cyperaceae, Labiatae, Compositae. It harms alfalfa.

This species has been recorded in the Mid-Asian part of the USSR from the steppes and foothills of the Fergan Valley (Oshanin, 1906).

Distribution: Mid-Asia.

Calocoris (s. str.) **fedtschenkoi** Reut.

Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1800 m. Tchatkal ridge: Arkit, 1500—1800 m.; Sary-Tchilek, 1900—2200 m. Ugam ridge: Syjak, 1500—1800 m.

In the steppe and mountain steppe formations, the tree-shrub forest zones, the subalpine meadows, along rivers. On *Tanacetum pseudoachillea*, *Nepeta pannonica*, *Ziziphora bungeana* and *Eremurus* sp.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Transalay-Alatau (Oshanin, 1906) and the Tchatkal ridge — Arkit, Sary-Tchilek (Popov, 1960).

Distribution. Mid-Asia.

Brachycoleus decolor Reut.

Fergana ridge: Kara-Alma, 1700—1900 m.; Karasu lake, 2000—2200 m. Ugam ridge: Syjak, 1500—1800 m.

In the steppe and mountain steppe formations, in the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Ugam ridge — Humsan (Oshanin, 1906) and

Tashkent [Reuter, 1887], and also from Central Kazakhstan — Kokshetau and Southern Kazakhstan — Koksengir mountain [Asanova, 1962].

Distribution. The South-East European part of the USSR, Caucasus, Mid-Asia.

***Brachycoleus decolor* f. *marginata* Stich.**

Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1600—1800 m. Tchatkal ridge: Arkit, 1400—1700 m.: Sary-Tchilek, 2000 m. Ugam ridge: Syjak, 1500—1800 m.

In the steppe and mountain steppe formations, the three-shrub zone, the mixed forest. On *Prangos pabularia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Ugam ridge — Humsan; Tashkent [Oshanin, 1906], Tchatkal ridge — Sary-Tchilek lake (Popov, 1960), Gissar ridge — Kondara [Kiritshenko, 1951a] and Darvaz ridge [Muminov, 1961a].

Distribution. Central and Southern Europe, Turkey, the European part of the USSR except the North, Caucasus, Mid-Asia, Siberia [Irkutsk].

***Dichroscytus pseudosabinae* Reut.**

Tchatkal ridge: Sary-Schilek, 2 ♂♂ and 1 ♀, 2000—2200 m. Ugam ridge: Nanay, 2 ♂♂, 2500 m.

In the mountain steppe formations with juniper, the sparse spruce forest in the subalpine zone. On *Juniperus seravschanica* and *Picea schrenkiana*, and also on *Juniperus semiglobosa* and *J. turkestanica* [Pazhitnova, 1952].

This species has been recorded in the Mid-Asian part of the USSR from Tien-Shan [Oshanin, 1906], Tchatkal ridge — Sary-Tchilek lake (Popov, 1960), Turkestan ridge — Guralash reserve [Pazhitnova, 1952] and Gissar ridge — Kvak [Kiritshenko, 1951a].

Distribution. Transcaucasus, Mid-Asia.

***Lygus* (s. str.) *pratensis* [L.]**

Fergana ridge: Kara-Alma, 1700—2000 m.; Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1800—2200 m.; Karasu lake, 1800—2200 m.; the valley of Karasu river, 1600—1800 m. Tchatkal ridge: Arkit, 1500—1800 m.; Sary-Tchilek, 1900—2200 m.; Parkent reserve, 1400—1800 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—2000 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers. On *Hissopus seravschanicus*, *Nepeta pannonica*, *Origanum tyttanthum*, *Artemisia lehmanniana*, *Atraphaxis pyrifolia*. It harms alfalfa, cotton, vegetable cultures.

This species is widely distributed through the steppe and mountain steppe zones of the Mid-Asian part of the USSR.

Distribution. Palaearctic region.

Lygus (s. str.) pachynemius Reut.

Fergana ridge: Karasu lake, 2000—2000 m. Tchatkal ridge: Sary-Tchilek lake, 2000—2500 m.

In the mountain steppe formations, the sparse fir-silver fir forest, the mixed forest, the Subalpine zone. On *Hissopus seravschanicus*, *Nepeta pannonica*, *Origanum tyttanthum*, *Artemisia dracunculus* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962); Talass ridge — Bish-Tash; Zeravshan ridge — Yagnob, Kitshik-Alay, Varzaminor, Taka (Oshanin, 1906), and also from the Tchatkal ridge — Sary-Tchilek lake (Popov, 1960); Turkestan ridge — Guralash reserve (Pazhitnova, 1952) and Gissar ridge — Kvak, Gushary, Anzob pass, Ziddy (Kiritshenko, 1951a).

Distribution. Palearctic region.

Lygus (s. str.) gemellatus (H.-S.)

Djalal-Abad, 2 ♂♂, 800 m.; Suzak, 1 ♂, 900 m.

In the semidesert and steppe formations, along rivers. On *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962); Gissar ridge — "Tigrovaya Balka" reserve (Kiritshenko, 1959), Darvaz ridge (Muminov, 1961a) and Southern Turkmenia — Kopet-Dagh ridge (Oshanin, 1906).

Distribution. Southern Europe, Egypt, Turkey, Iran, the South European part of the USSR, Caucasus, Mid-Asia.

Lygus (Apolygus) lucorum (Mey.)

Fergana ridge: Kara-Alma, 1800 m.; Kara-Unkur, 1900—2200 m. Tchatkal ridge: Arkit, 1700—1900 m.; Sary-Tchilek lake, 2000—2200 m. Pskem ridge: Pskem, 1800 m.

In the steppe mountain formations, the tree-shrub zone, the mixed forest, the subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR only from the Tashkent district (Oshanin, 1906).

Distribution. Palaearctic region, and also Nearctic region (USA).

Agnocoris rubicundus (Fall.)

Kok-Yangak; 2 ♂♂ and 1 ♀, 1200 m. Tchatkal ridge: Arkit, 2 ♂♂, 1400 m.

In the steppe formations, the tree-shrub zone, along rivers. On *Salix*.

This species has been recorded in the Mid-Asian part of the USSR from Alay (Oshanin, 1906) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Palaearctic region.

Orthops kalmi (L.)

Fergana ridge: Kara-Alma, 1800 m.; Kizyl-Unkur, 1600—1800 m. Thatkal ridge. Arkit, 1400—1700 m.; Sary-Tchilek, 1800—1200 m. Ugam ridge: Syjak, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Bunium chaerophylloides*, *Artemisia persica*.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Mid-Asia.

Orthops kalmi f. orientalis Reut.

Fergana ridge: Karasu lake, 1 ♂ and 1 ♀, 2200 m. Tchatkal ridge: Sary-Tchilek, 1 ♂ and 3 ♀♀, 3000 m.

In the mountain steppe formations, the tree-shrub zone, the subalpine and alpine meadows. On *Spirea hyperucifolia*.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Mid-Asia.

Orthops pilosulus Jak.

Tchatkal ridge: Parkent reserve, 4 ♂♂ and 8 ♀♀, 1400 m.

In the steppe and mountain steppe formations, the tree-shrub zone. On *Atraphaxis pyrifolia*.

This species is known in the Mid-Asian part of the USSR only from the Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Northern Iran, Mid-Asia.

Orthops sanguinolentus Reut.

Tchatkal ridge: Sary-Tchilek, 2 ♂♂, 2300 m. Ugam ridge: Nanay, 1 ♂ and 2 ♀♀, 2500 m.

In the mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine and alpine meadows. On *Artemisia persica*, also on *Rumex* and *Mentha silvestris* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake, Gissar ridge — Iskander-Kul lake, the Samarkand district, Alay, Talass ridge (Oshanin, 1906), and also Tchatkal ridge — Sary-Tchilek lake (Popov, 1960), Turkestan ridge — Guralash reserve (Pazhitnova, 1952) and Gissar ridge — Kondara, Kvak, Anzob pass (Kiritshenko, 1951a).

Distribution. Mid-Asia.

Polymerus (Poeciloscytus) vulneratus (Panz.)

Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1600 m. Tchatkal ridge: Arkit, 1500—1700 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. It is mainly on Labiatae: *Hissopus seravschanicus*, *Nepeta pannonica*, *Origanum tyttanthum*, and also on alfalfa crops.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Kirghizian ridge, Ugam ridge — Humsan, Nanay, Alay — Osh, Modi, and also Tashkent, Djizak and Utch-Kurgan (Oshanin, 1906), Tchatkal ridge — Arkit (Popov, 1960), Gissar ridge — Kondara (Kiritshenko, 1951a) and Darvaz ridge (Muminov, 1961a).

Distribution. Europe, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

***Polymerus (Poeciloscytus) unifasciatus* (Fabr.)**

Djalal-Abad, 800 m.; Suzak, 900 m.; Oktyabrskoe, 900 m.; Kok-Yan-gak, 1100 m. Fergana ridge: Achi, 1400 m.; Kizyl-Unkur, 1600 m.; Kara-Alma, 1700—1900 m.; Karasu lake, 2000 m.; the valley of Karasu river, 1600—1800 m. Tchatkal ridge: Arkit, 1400—1800 m.; Sary-Tchilek lake, 2000 m. Ugam ridge: Syjak, 1500—1700 m.; Nanay, 1500 m.

In semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. It is very often on *Galium verum*, and also recorded on *Artemisia draeunculus* (Pazhitnova, 1952).

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Palaearctic region, also Nearctic region (Alaska, Canada, USA).

***Polymerus (Poeciloscytus) cognatus* (Fieb.)**

Fergana ridge: Kara-Alma, 1700—1900 m.; Karasu lake, 2000 m. Pskem ridge: Pskem, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan — Iliysk, Ter-mirlik, Turkmenia — Krasnovodsk, Kopet-Dagh (Oshanin, 1906).

Distribution. Palaearctic region.

***Polymerus (Poeciloscytus) brevicornis* Reut.**

Ugam ridge: Syjak, 5 ♀♀, 1600 m.

In the steppe and mountain steppe formations with sparse sage-brush. On *Galium*.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan, Tashkent, Keles, Tchimbkent, Southern Turkmenia — Kopet-Dagh (Oshanin, 1906a) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, the European part of the USSR, except the North, Caucasus, Mid-Asia, Siberia (Minusinsk).

Polymerus (Poeciloscytus) dissimilis Reut.

Djalal-Abad, 2 ♂♂, 800—900 m.

In the semidesert and steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent Alatau — Humsan, Nanay, Tchimgan (Oshanin, 1906) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Mid-Asia.

Charagochilus gyllenhali (Fall.)

Djalal-Abad, 800 m.; Suzak, 900 m.; Oktyabrscoe, 900 m.; Kok-Yan-gak, 90—1200 m.; Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1700 m.; Karasu lake, 2000 m.; the valley of Karasu river, Tchatkal ridge: Arkit, 1600—1800 m.; Sary-Tchilek, 2000—2200 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1500—1800 m.; Nanay, 1700 m.

In semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers. On *Galium verum*, *Spiraea hypericifolia*.

This species is widely distributed through the whole of the steppe and mountain steppe zones of the Mid-Asian part of the USSR.

Distribution. Palaearctic region.

Liocoris tripustulatus (Fabr.)

Ugam ridge: Nanay, 2 ♂♂ and 1 ♀, 1700 m.

In steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Tien-Shan and Ashhabad (Oshanin, 1906).

Distribution. Palaearctic region.

Capsus (Rhopalotomus) cinctus (Kol.)

Pskem ridge: Pskem, 4 ♂♂ and 4 ♀♀, 1600 m. Ugam ridge: Syjak, 2 ♂♂ and 4 ♀♀, 1700—1800 m.

In the steppe and mountain steppe formations, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from South-Western Kazakhstan — Kizyl-Orda, Tchimgan and Kizyl-Kum (Oshanin, 1906), and also from Central Kazakhstan — Kokshetau and Southern Kazakhstan — Koksengir (Asanova, 1962).

Distribution. Turkey, the South of the European part of the USSR, Caucasus, Mid-Asia.

DERAEOCORINAE

Deraeocoris (s. str.) **scutellaris** (Fabr.)

Ugam ridge: Nanay, 1 ♀, 1700 m.

In the steppe and mountain steppe formations, along rivers.

This species has been recorded in the Mid-Asian part of the USSR only from Central Tien-Shan (Oshanin, 1906).

Distribution. Europe, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk), Mongolia.

Deraeocoris (Camptobrochis) punctulatus (Fall.)

Djalal-Abad, 800 m.; Suzak, 900 m.; Bazar-Kurgan, 900—1200 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m. Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1900—2100 m. Tchatkal ridge: Arkit, 1200—1700 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1500—1700 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Artemisia lehmaniana*, *Artemisia persica*, *Ziziphora bungeana*, *Spiraea hypericifolia*, also on *Tanacetum* and *Achillea* (Pazhitnova, 1952).

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Europe, North Africa, Syria, Turkey, Iran, the European part of the USSR, Caucasus, Siberia (Irkutsk).

Deraeocoris (Camptobrochis) serenus (Dgl. et Sc.)

Djalal-Abad, 800 m.; Suzak. Fergana ridge: Kara-Alma, 1600—1800 m.; Karasu lake, 1800—2000 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan, Alay, Ugam ridge and Turkmenia — Krasnovodsk, Kopet-Dagh (Oshanin, 1906).

Distribution. Southern Europe, Morocco, Egypt, Israel, Syria, Turkey, Iran, Afghanistan, Caucasus, Mid-Asia.

Deraeocoris (Camptobrochis) pilipes Reut.

Tchatkal ridge: Arkit, 1 ♂ and 2 ♀♀, 1900 m., Ugam ridge: Syjak, 1 ♂, 1600 m.

In steppe and mountain steppe formations, along rivers.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Iran, Mid-Asia, Mongolia, Northern China.

DICYPHINAE

Campyloneura decorata Kir.

Fergana ridge: Kara-Alma, 1 ♂ and 7 ♀♀; Kizyl-Unkur, 1 ♂ and 2 ♀♀, 1600 m.; 2 ♂♂, 1900 m.; Tchatkal ridge; Sary-Tchilek lake, 3 ♂♂ and 4 ♀♀, 2000—2200 mm. Ugam ridge; Syjak, 2 ♂♂, 1700 m.

In steppe and mountain steppe formations, the tree-shrub zone, the mixed forest. On *Lonicera karelini*.

This species has been recorded in the Mid-Asian part of the USSR from Kirghizian ridge — Tokmak, Alay ridge — Skobelev; Djalal-Abad, Kokand, Tashkent and Tchatkal ridge — Sary-Tchilek lake (Kiritshenko, 1941).

Distribution. Mid-Asia.

Hallodapus (Plagiorrhama) suturalis (H.-S.)

Tchatkal ridge: Parkent reserve, 1 ♂, 1400 m.

The steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Bet-Pak-Dala Desert (Asanova, 1962), Tashkent Alatau — Tchimgan, KUPIUK and Southern Turkmenia — Aschabad.

Distribution. Central and Southern Europe, Turkey, the South of the European part of the USSR, Caucasus, Mid-Asia.

Dicyphus (Mesodicyphus) montanus Popp.

Ugam ridge: Nanay, 1 ♂, 2500 m. Pskem ridge: Pskem, 2 ♂♂ and 1 ♀, 1700 m.

In the mountain steppe formation, the tree-shrub zone, the subalpine meadow.

This species was described from the Kirghizian ridge.

Distribution. Mid-Asia.

Dicyphus (Mesodicyphus) testaceus Reut.

Ugam ridge: Nanay, 1 ♂ and 1 ♀, 2500 m.

The subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR from Ugam ridge — Humsan, Syjak, Britch-Mulla (Oshanin, 1906), Alay — Shachimardan (Reuter, 1887) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Mid-Asia.

Dicyphus (Brachyceraea) thoracicus Reut.

Ugam ridge: Syjak, 1 ♂, 1600 m.

The tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent, Ugam ridge — Humsan, Zeravshan ridge — Varzaminor and Darvaz ridge (Oshanin, 1906).

Distribution. Mid-Asia.

Dicyphus (Brachyceraea) orientalis Reut.

Pskem ridge: Pskem, 1 ♂ and 1 ♀, 1700 m.

In the steppe and mountain steppe formations. On *Heracleum* and *Verbascum* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Frunze, Tchimgan (Tashkent Alatau), Alay ridge and Tashkent (Oshanin, 1906), and also Fergan, Zeravshan, Turkestan, Kirghizian ridge, Samarkand (Kiritshenko, 1931) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Mid-Asia.

ORTHOTYLINAE

Pilophorus sinuaticollis Reut.

Tchatkal ridge: Arkit, 2 ♂♂ and 3 ♀♀, 1500—1700 mm.

In the steppe and mountain steppe formations, along rivers. On *Ziziphora bungeana*.

This species has been recorded in the Mid-Asian part of the USSR from Talass ridge — Dmitrovka, Pskem ridge — Pskem, Tchimgan; Tashkent, Samarkand, South-Eastern Kara-Kum, Kizyl-Kum (Oshanin, 1906), and also Gissar ridge — Iskander-Kul lake (Oshanin, 1906) and Kondara (Kiritshenko, 1951a).

Distribution. Mid-Asia.

Orthocephalus bivittatus Fieb.

Djalal-Abad, 800 m.; Suzak, 800 m. Fergana ridge: Kara-Alma, 1700 m.; Karasu lake, 1800—2000 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1700 m., Nanay, 2200 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR only from Central Kazakhstan — Kokshetau mountain and Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. Central and Southern Europe, Turkey, the forest and steppe zones of the European part of the USSR, Caucasus, Mid-Asia.

Halticus apterus (L.)

Djalal-Abad, 800 m.; Suzak, 800 m.; Oktyabrskoe, 900 m.; Kok-Yan-gak, 900—1200 m. Fergana ridge: Kara-Alma, 1700—2000 m.; Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1900—2200 m.; Karasu lake, 2000 m.; the valley of Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1500—1700 m. Ugam ridge: Syjak, 1700 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Talass ridge — Dmitrovka, Tashkent Alatau — Tchimgan, Alay — Shachimardan (Oshanin, 1906).

Distribution. Palaearctic region, and also Nearctic region (USA).

Halticus pusillus (H.-S.)

Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1600—1800 m.; Karasu lake, 2000 m.; the valley of Karasu river, 1600—1900 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1500—1700 mm.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers.

This species has been recorded in the Mid-Asian part of the USSR only from Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Europe, the European part of the USSR except the North, Mid-Asia, Siberia (Irkutsk).

***Cyrtorrhinus caricis* (Fall.)**

Ugam ridge: Syjak, 1 ♂ and 1 ♀, 1600 m. Pskem ridge: 1 ♂, 1700 m. In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake, Alay and Tashkent (Oshanin, 1906).

Distribution. Palaearctic region, and also the Nearctic region (Alaska).

***Globiceps (Kelidocoris) fulvicollis* f. *cruciatus* Reut.**

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 1000 m.; Kok-Yan-gak, 900—1200 m. Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1700 m.; Karasu lake, 2000 m.; the valley of Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1600—1800 m.; Sary-Tchilek, 2000—2200 m. Ugam ridge: Syjak, 1600—1800 m.

In semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Rosa kokanika* and *Spiraea hypericifolia*.

This species has been recorded in the Mid-Asian part of the USSR from Frunze district (Oshanin, 1906), Tchatkal ridge — Arkit and Sary Tchilek lake (Popov, 1960), and Darvaz ridge (Muminov, 1961).

Distribution. Europe, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Minusinsk).

***Orthotylus* (s. str.) *marginalis* Reut.**

Fergana ridge: Kara-Alma, 3 ♂♂ and 1 ♀, 1700—1900 m.

In the mountain steppe formation, the mixed forest, along rivers. On *Tamarix* and *Salix*.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. Europe, Turkey, the European part of the USSR, Caucasus, Siberia (Irkutsk).

***Orthotylus (Melanotrichus) fieberi* Frey**

Djalal-Abad, 1 ♂ and 2 ♀♀, 800 m.

In semidesert and steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from the Fergana Valley — Samgar, Djan-Bulak and Turkmenia — Ted-jen (Oshanin, 1906).

Distribution. Egypt, Syria, Iran, the South European part of the USSR, Caucasus, Mid-Asia.

Orthotylus (Melanotrichus) turanicus Reut.

Fergana ridge: Karasu lake, 3 ♂♂ and 2 ♀♀, 2000—2200 m.

In the mountain steppe formation, the subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Przhevalsk, Alma-Ata; Alay and Fergana — Isfara (Oshanin, 1906), also from Alay ridge — Kizyl-Yar (Kiritshenko, 1931) and Tigrovaya Balka" reserve (Kiritschenko, 1951a).

Distribution. Mid-Asia.

Orthotylus (Melanotrichus) flavosparsus (C. Sahlb.)

Fergana ridge: the valley of Karasu river, 1 ♂ and 1 ♀, 1600 m.

In the steppe and mountain steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake, Kirghizian ridge, Kokand, Tashkent, Samarkand (Oshanin, 1906).

Distribution. Palaearctic region, and also Nearctic region (USA).

Myrmecophyes monticola Horv.

Tchatkal ridge: Sary-Tchilek, 3 ♂♂ and 11 ♀♀, 2000—2500 m.

In the mountain formations, and subalpine and alpine meadows. On *Prangos pabularia*.

This species has been described from Kirghizian ridge (Horvath, 1926).

Distribution. Mid-Asia.

Myrmecophyes limbatus Reut.

Ugam ridge: Syjak, 4 ♂♂ and 8 ♀♀, 1700—1900 m.

In the steppe and mountain steppe formations. On *Ziziphora* sp.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan (Horvath, 1926), Alay, Zeravshan ridge — Varzaminor and Tashkent Alatau — Tchimgan (Oshanin, 1906).

Distribution. Mid-Asia.

Myrmecophyes tibialis Reut.

Fergana ridge: Karasu lake, 2 ♂♂, 2000 m.; Kenkol pass, 1 ♂ and 1 ♀, 3200 m.

In subalpine and alpine meadows.

This species has been recorded in the Mid-Asian part of the USSR only from Central Tien-Shan — Issyk-Kul.

Distribution. Mid-Asia.

Scirtetellus seminitens Horv.

Fergana ridge: Kenkol pass, 4 ♂♂ and 10 ♀♀, 3200 m.

The alpine meadow. On *Ranunculus* sp. and *Allium monadelphum*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-shan — Kugey-Alatau, Terskey-Alatou, Zailiyski-Alatau and Kirghizian ridge.

Distribution. Mid-Asia.

PHYLINAE

***Oncotylus* (s. str.) *punctipes* Reut.**

Ugam ridge: Syjak, 3 ♂♂ and 1 ♀, 1700 m. Pskem ridge: Pskem, 1 ♂ and 1 ♀, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Palaearctic region, and Nearctic region (Canada, USA).

***Oncotylus* (s. str.) *reuteri* (Osh.)**

Fergana ridge: Kara-Alma, 1 ♂ and 7 ♀♀, 1600—1800 m., Tchatkal ridge; Sary-Tchilek, 3 ♂♂ and 9 ♀♀, 2000—2200 m. Ugam ridge: Syjak, 3 ♂♂, 1700 m.

In the steppe and mountain steppe formations, the tree-shrub zone. On *Prangos pabularia*.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent, Tchimgan, Darvaz ridge (Oshanin, 1906), and also Tchatkal ridge — Sary-Tchilek lake (Popov, 1960) and Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Mid-Asia.

***Oncotylus* (s. str.) *desertorum* Reut.**

Djalal-Abad, 1 ♂ and 1 ♀, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR only from the Kizyl-Kum Desert (Oshanin, 1906).

Distribution. Mid-Asia.

***Oncotylus* (*Cylindromelus*) *setulosus* (H.-S.)**

Pskem ridge: Pskem, 1 ♂ and 3 ♀♀, 1700 m.

In the steppe and mountain steppe formations. On *Artemisia dracunculus* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Karatau ridge (Southern Kazakhstan), Ugam ridge — Humsan; Alay, Tashkent (Oshanin, 1906), and also Turkestan ridge — Guralash reserve (Pazhitnova, 1952), Alay (Kiritshenko, 1931) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, Algeria, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

Malthacosoma halimocnemis {Becker}

Ugam ridge: Syjak, 5 ♂♂ and 7 ♀♀, 1200 m.

In the semidesert and steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from Frunze, Alay and Zeravshan ridges, Tashkent, Golodnaya Desert and Aschabad (Oshanin, 1906), and in the semidesert formation of Southern Kazakhstan — Otar (Popov, 1956).

Distribution. Iran, the South European part of the USSR, Caucasus, Mid-Asia.

Solenoxyphus lepidus {Fabr.}

Fergana ridge: the valley of Karasu river, 1 ♂, 1700 m.

The mountain steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan and Southern Kazakhstan (Karatau ridge and foothills of Kirgizian ridge), and also from Koksengir mountain (Asanova, 1962).

Distribution. Southern Europe, the South European part of the USSR, Caucasus, Mid-Asia.

Megalocoleus molliculus {Fall.}

Fergana ridge: the valley of Karasu river, 1700—1900 m.; Kizyl-Unkur, 1600—1800 m. Tchatkal ridge: Arkit 1600—1800 m.

In the steppe and mountain steppe formations, along rivers. On *Achillea filipendula*, *Myricaria alopecuroides* and *Artemisia sacrorum*.

I did not find essential differences between *M. molliculus* {Fall.} and *M. ochroleucus* Krschb. when I compared them and therefore I consider *M. ochroleucus* Krschb. a synonym of *M. molliculus* {Fall.}.

This species is known in the Mid-Asian part of the USSR from South Kazakhstan (Oshanin, 1906), and also from Central Kazakhstan (Asanova, 1962).

Distribution. Europe, Algeria, Turkey, the European part of the USSR, Caucasus, Mid-Asia.

Amblytylus concolor Jak.

Djalal-Abad, 3 ♂♂ and 3 ♀♀, 800 m.

In the semidesert and steppe formations. On Graminea.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent, Khodjacent (Oshanin, 1906), and also Gissar ridge — the valley of Varzob river, Kondara (Kiritshenko, 1951a).

Distribution. Southern Europe, Turkey, the South European part of the USSR, Mid-Asia.

Amblytylus testaceus Reut.

Fergana ridge: the valley of Karasu river, 4 ♂♂ and 8 ♀♀, 1600 — 1900 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Hungary, Albania, the South European part of the USSR, Caucasus, Mid-Asia.

***Acrotelus pilosicornis* (Reut.)**

Fergana ridge: Kara-Alma, 2 ♂♂ and 5 ♀♀, 1800 m.; Kizyl-Unkur, 2 ♂♂ and 2 ♀♀, 1700 m.

In the mountain steppe formation, the three-shrub zone, the mixed forest, the subalpine meadow.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Mid-Asia, Southern Siberia, Mongolia.

***Macrotylus cruciatus* (F. Sahlb.)**

Fergana ridge: Karasu lake, 1 ♂, 2000 m. Tchatkal ridge: Sary-Tchilek lake, 2 ♂♂ and 1 ♀, 2000—2200 m.

In the mountain formations, the subalpine meadow, along rivers. On *Prangos pabularia* and *Hypericum perforatum*.

This species has been recorded in the Mid-Asian part of the USSR only from the Alma Ata district.

Distribution. Central Europe, the European part of the USSR, Mid-Asia, Siberia.

***Orthonotus fuscicornis* (Reut.)**

Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1600—1800 m. Tchatkal ridge: Sary-Tchilek, 2000 m. Ugam ridge: Syjak, 1700 m.

In the mountain formations, the tree-shrub zone, the mixed forest, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Frunze, Tashkent, Alatau — Tchimgan, Britch-Mulla, Pskem; the Fergana Valley — Leninabad (Khodjent); Alay — Soh and Gissar ridge — Uzun (Oshanin, 1906), Kondara (Kiritshenko, 1951a).

Distribution. Mid-Asia.

***Psallus* (s. str.) *cognatus* Jak.**

Tchatkal ridge: Sary-Tchilek, 2000—2200 m.

The mountain steppe formations. On *Spiraea hypericifolia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain and Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. The South European part of the USSR (the steppe zone), Mid-Asia.

Coniortodes kiritshenkoi Kerzh.

Fergana ridge: Kenkol ravine, 1 ♂, 1800 m.

The mountain steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Fergana ridge — Gava and Ak-Terek (Kerzhner, 1962).

Distribution. Mid-Asia.

Criocoris quadrimaculatus (Fall.)

Djalal-Abad, 800 m. Fergana ridge: Karasu lake, 2000 m.; the valley of Karasu river, 1700—1900 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Galium verum*.

This species has been recorded in the Mid-Asian part of the USSR only from Central Tien-Shan — Przhevalsk (Oshanin, 1906).

Distribution. Europe, Iran, the European part of the USSR, Mid-Asia, Siberia (Irkutsk), Mongolia.

Plagiognathus (s. str.) **bipunctatus** Reut.

Djalal-Abad, 4 ♂♂ and 4 ♀♀, 800 m. Pskem ridge: 1 ♂ and 3 ♀♀, 1600 m.

In the semidesert and steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Iliysk and the Fergana Valley — Gultcha (Oshanin, 1906), and also from Turkestan ridge — Guralash reserve (Pazhitnova, 1962) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, Turkey, Iran, the South European part of the USSR, Caucasus, Mid-Asia.

Plagiognathus (s. str.) **chrysanthemi** (Wolff)

Djalal-Abad, 800 m. Fergana ridge: Kara-Alma, 1700—2000 m.; Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1900 m.; Karasu lake, 2000 m.; the valley of the Karasu river, 1600—1900 m.

In the mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Central and Western Tien-Shan (Oshanin, 1906), Alay ridge — Yangryk (Kiritshenko, 1931) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Europe, Algeria, the European part of the USSR, Caucasus, Mid-Asia, Siberia.

Plagiognathus (s. str.) **fulvipennis** (Krschb.)

Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Central and Southern Europe, Turkey, the European part of the USSR, Caucasus, Mid-Asia.

***Plagiognathus (Chlorillus) alpinus* (Reut.)*)**

Fergana ridge: Kara-Unkur, 1 ♂ and 1 ♀, 1900 m.

The mountain steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Przhevalsk; Southern Kazakhstan; Tashkent, Alatau (Oshanin, 1906).

Distribution. Central and Southern Europe, Turkey, the South European part of the USSR, Mid-Asia.

***Plagiognathus (Zophocnemis) bicolor* (Jak.)**

Pskem ridge: Pskem, 2 ♂♂ and 3 ♀♀, 1700 m. Ugam ridge: Syjak, 1 ♂ and 1 ♀, 1700 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. Central and Southern parts of the European part of the USSR, Caucasus, Mid-Asia.

***Plagiognathus (Poliopterus) albipennis* (Fall.)**

Fergana ridge: Kara-Alma, 1700—1900 m.; the valley of Karasu river, 1600—1800 m.; Utchterek, 1500 m. Tchatkal ridge: Arkit, 1600—1800 m., Sary-Tchilek lake, 2000 m. Ugam ridge: Syjak, 1700—1900 m., Nanay 2500 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers. On *Artemisia persica*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Przhevalsk, the Fergana Valley and Alay (Oshanin, 1906).

Distribution. Palaearctic region.

***Eumecotarsus breviceps* (Reut.)**

Djalal-Abad, 800 m.; Suzak, 800—900 m. Fergana ridge: Kizyl-Unkur, 1600—1800 m. Tchatkal ridge: Arkit, 1600—1800 m.

In the mountain steppe formations, along rivers. On *Myricaria alopecuroides*, and also *Tamarix ramosissima*.

*) The question of systematic position and nomenclature was elaborated by I. M. Kerzhner in his recent paper "Materials on the taxonomy of capsid bugs (Heteroptera, Miridae) in the fauna of the USSR (Kerzhner, 1962).

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan and Tashkent Alatau (Oshanin, 1906), and also from Tchatkal ridge — Arkit (Popov, 1960) and Gissar ridge — Kondara (Kiritshenko, 1951a), and also Pamiro-Alay, Zeravshan, Fergan, Talass, Karzhantau, Kirghizian, Alatau, Zailiyski Alatau, Terskey Alatau ridges (Kerzhner, 1962c).

Distribution. Caucasus, Mid-Asia, South of Siberia, Mongolia.

***Chlamydatus (Euattus) pullus* (Reut.)**

Fergana ridge: Achi, 1400—1600 m.; Kara-Alma, 1700—1900 m.; Karasu lake, 2000 m.; the valley of Karasu river, 1600—1900 m. Tchatkal ridge: Sary-Tchilek, 2000—2200 m. Ugam ridge: Syjak, 1600—1900 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Achillea* and *Spiraea*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan and Southern Kazakhstan (Oshanin, 1906), and also from Tchatkal ridge — Sary-Tchilek (Popov, 1960).

Distribution. Palaearctic region.

***Monosynamma basale* (Reut.)**

Fergana ridge: Atchi, 1400—1600 m.; Tchatkal ridge: Sary-Tchilek lake, 2000—2200 m.

In the mountain steppe formations, the mixed forest, along rivers. On *Spiraea hypericifolia*, and also on *Perovskia scrophulariaefolia* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Tchatkal, Zeravshan, Alay ridges and Fergana Valley (Kiritshenko, 1931).

Distribution. Mid-Asia.

***Campylomma nicolasi* Put. et Reut.**

Fergana ridge: Kizyl-Unkur, 4 ♂♂ and 2 ♀♀, 1700 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Central and Southern Europe, Egypt, Eritrea (Ethiopian region), Israel, Turkey, South of the European part of the USSR, Transcaucasus, Mid-Asia.

***Campylomma diversicorne* Reut.**

Tchatkal ridge: Parkent reserve, 1 ♂ and 4 ♀♀, 1400 m.

In the steppe and mountain steppe formations. On *Atraphaxis pyrofolia*.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent Alatau, Golodnaya Desert, Alay and Turkmenia (Oshanin, 1906).

Distribution. Iraq, Turkey, Mid-Asia.

Tuponia elegans (Jak.)

Tchatkal ridge: Arkit, 2 ♂♂ and 2 ♀♀, 1700 m.

The mountain steppe formations, along rivers. On *Tamarix*.

This species has been recorded in the Mid-Asian part of the USSR from Golodnaya Desert and Western Turkmenia (Oshanin, 1906).

Distribution. Algeria, Iran, the South European part of the USSR, Mid-Asia.

Tuponia sahlbergi Reut.

Fergana ridge: Kizyl-Unkur, 1700 m.

Along rivers. On *Myricaria alopecuroides*.

This species has been recorded in the Mid-Asian part of the USSR only from Central Tien-Shan — Issyk-Kul lake and Tchu river (Oshanin, 1906).

Distribution. Mid-Asia.

NABIDAE

PROSTEMMATINAE

Prostemma sanguineum (Rossi)

Fergana ridge: Kara-Alma, 1 ♀, 1700 m.; valley of the Karasu river, 1 ♀, 1600 m. Pskem ridge: Pskem, 1 ♂, 1600 m. In the steppe and mountain steppe formations, along rivers. Under stones.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain (Asanova, 1962), the lower regions and foothills (Oshanin, 1906) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, North Africa, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

NABINAE

Nabis (s. str.) **palifer** Seid.

Djalal-Abad, 2 ♂♂ and 2 ♀♀, 800 m. Fergana ridge: Kizyl-Unkur, 1 ♂ and 2 ♀♀, 1600 m. Pskem ridge: Pskem, 2 ♂♂, 1700 m. Ugam ridge: Syjak, 1 ♂ and 3 ♀♀, 1700 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent, Ashkhabad and Kopet-Dagh (Seidenstücker, 1954), and also from Darvaz ridge (Muminov, 1961a).

Distribution. Cyprus, Turkey, Mid-Asia.

Nabis (s. str.) ferghanensis Rem.

Pskem ridge: Pskem, 3 ♂♂ and 2 ♀♀, 1700 m.
In the steppe and mountain steppe formations.
Distribution. Mid-Asia.

Aptus maracandicus Reut.

Pskem ridge: Pskem, 1 ♂, 1600 m.
The steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Karatau ridge (Southern Kazakhstan), Samarkand (Oshanin, 1906), Fergana ridge — Kara-Alma (K. Arnoldi, 1949), Gissar ridge — Kondara, Kvak, Ruidasht (Kiritshenko, 1951 a) and Kopet-Dagh (Oshanin, 1906), Golodnaya Desert (Yachontov, 1962).

Distribution. Mid-Asia.

Aspilaspis viridis (Brullé)

Ugam ridge: Sidjak, 3 ♂♂, 1500 m.; Khumsan, 1 ♂ and 4 ♀♀, 1300—1500 m.

In the semidesert and steppe formations, along rivers. On *Tamarix*.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Kizyl-Orda, Kazalinsk (Oshanin, 1906), Koksengir mountain (Asanova, 1962), the Fergana Valley (Oshanin, 1906), Gissar ridge — Kondara (Kiritshenko, 1951 a), Golodnaya Desert (Yachontov, 1962) and Kashgarien (Oshanin, 1906).

Distribution. Southern Europe, North Africa, Syria, Turkey, Iran, North-Eastern Caucasus, Mid-Asia.

REDUVIIDAE

ACANTHASPIDINAE

Holotrichius moestus Reut.

Pskem ridge: Pskem, 1 ♂, 2 ♀♀ and 2 larv., 1800 m. Ugam ridge: Syjak, 2 ♂♂, 1 ♀ and 2 larv., 1700 m.

In the steppe and mountain steppe rocky formations. On the ground and under stones.

This species has been recorded in the Mid-Asian part of the USSR from Zeravshan ridge — Varzaminor (Oshanin, 1891), Agalyk, Aman-Kutan, Shaar, Kstut (Kiritshenko, 1931), Gissar ridge — Shut, Khodja-Obi-Garm, Gorif, Derbent, Kushangtau (Kiritshenko, 1931), Kondara (Kiritshenko, 1951 a), Iskander-Dariya, Dushambe, Gulbista, Liutchob, Noudshi, Matchmud, Varzob (Kiritshenko, 1951 a), and Alay ridge — Gultcha (Kiritshenko, 1931).

Distribution. Mid-Asia.

REDUVIINAE

Pasira basiptera Stål

Djalal-Abad, 1 ♂, 800 m.; Suzak, 2 ♂♂, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Southern Turkmenia — Ashkhabad, Gerirud, Merv, Bayram-Ali, Shok-Tepe and Golodnaya Desert — Tchipas (Oshanin, 1906), and also from Southern Tajikistan — Kayrakum, Ayvad, Tchubek, Tchesme-Govan, Knodja-Galton, Djilikul, Staraya Pristan, Kurgan-Tiube, Gissar, Dushambe (Kiritshenko, 1952).

Distribution. Southern Europe, North Africa, Abyssinia, Eritrea, Senegal, Syria, Turkey, Iran, Afghanistan, the South European part of the USSR, Caucasus, Mid-Asia.

Reduvius christophi (Jak.)

Suzak, 1 ♂, 800 m.

The semidesert formations.

This species has been recorded in the Mid-Asian part of the USSR from Fergana — Leninabad, Kokand, Divana and Turkmenia — Krasnovodsk, Ashkhabad, Adam-Ilan, Sary-Yazi, Zekke, Herirud, Annau, Kushka, Repetek (Oshanin, 1906), Merv (Linnavuori, 1953), Kiuren-Dagh (Pazhitnova, 1952), and also from Gissar ridge — "Tigrovaya Balka" (Kiritshenko, 1959).

Distribution. Mid-Asia.

PIRATINAE

Ectomocoris ululans (Rossi)

Djalal-Abad, 1 ♂, 800 m.; Suzak, 1 ♂, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Gissar ridge — Kondara (Kiritshenko, 1951a), and Turkmenia-Sary-Yazi, Herirund, Ashkhabad (Oshanin, 1906).

Distribution. Southern Europe, North Africa, Iraq, Turkey, Iran, Afghanistan, the South European part of the USSR, Caucasus, Mid-Asia.

HARPACTORINAE

Rhinocoris (Oncauchenius) abramovi Osh.

Ugam ridge: Syjak, 3 ♂♂ and 5 ♀♀, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Bet-Pak-Dala Desert (Asanova, 1962), Leninabad, Djan-Bulak, Agatchi, Zaaman (the foothill of Turkestan ridge), Tashkent, Samarkand, Akkum (Golodnaya Desert), Bukhara (Oshanin, 1906), Gissar ridge — the Varzob river, Kondara (Kiritshenko, 1951a).

Distribution. Mid-Asia.

Rhinocoris (Oncauchenius) kiritshenkoi Y. Popov*Rhinocoris nigrothorax* (nom. nud.) Kiritshenko, 1951a.

This species has never been formally described, and I therefore, with Dr. A. N. Kiritshenko's kind permission, give a description in this work.

Body oval, tapering anteriorly; 2.5 times as long as wide. Head, pronotum, scutellum, venter and legs black; hemelytra, connexivum, lateral margins of sternites and tergites, and also the posterior half of the

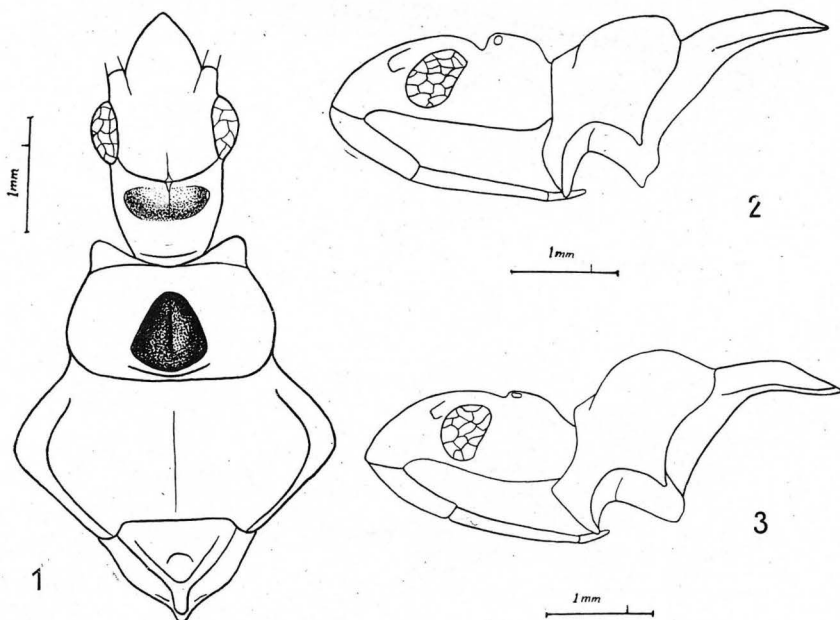


Fig. 1: *Rhinocoris (Oncauchenius) kiritshenkoi* J. Pop., male (paratype) — head and pronotum, frontal view. Fig. 2: ditto — head and pronotum, lateral view. Fig. 3: *Rhinocoris (Oncauchenius) abramovi* Osh., male — head and pronotum lateral view.

last tergite brown or light brown. Head, pronotum and legs with white, long erect hairs, the base of the tibia with dense and very short hairs; body with small, thin and light golden pubescence. Body smooth, with slight striation in some places.

Head 1.5 times as long as wide including the eyes (fig. 1); black, save for a small white spot in the hollow of the hillock between the ocelli; smooth, without punctation. Eyes large, semiglobular; dark brown. Frons strongly vaulted, separated from vertex by a deep furrow; 1.3 times as long as wide. Vertex and occiput raised and prominent, with a small hollow between ocelli. Antennae thin, long, gradually tapering to the end; dark brown, the lower third of the first segment almost black, the end light brown; with light pubescence. The first antennal segment is covered with sparse, very short hairs; the 2nd segment with dense erect and longer

hairs, and also rarely very long ones, 3rd and 4th segments with very short pubescence; relative length of the antennal segments I : II : III : IV = 48 : 25 : 18 : 48.

Pronotum hexagonal, 1.1 times as long as wide (fig. 1), bearing distinct hillocks in the anterior part, their inside walls almost perpendicular to the body; lateral margins of the posterior half of pronotum hardly bent up; median furrow very deep, especially in the anterior lobe

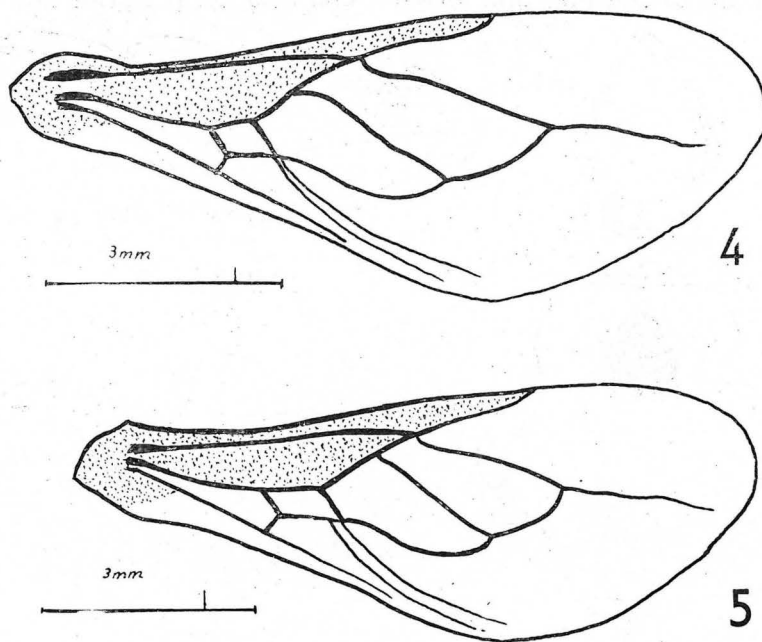


Fig. 4: *Rhinocoris (Oncauchenius) kiritshenkoi* J. Pop., male — hemelytra. Fig. 5: *Rhinocoris (Oncauchenius) obramovi* Osh., male — hemelytra.

of pronotum. Anterior and lateral margins of pronotum with more or less thick short hairs, which are sparse and situated in one or two rows on the margins. Scutellum small, black, with the very end reddish-yellow or pale yellow; sloping downwards sharply towards the rear, but with wide lateral margins, which bend up terminally and make a small scoop at the extreme end, perpendicular to the other part of the scutellum. Hemelytra bright red or yellowish-red; clavus bent up; cubital cell almost square (fig. 4).

Lower side of the body pitch-black, genital segment red; with sparse erect hairs; thorax and the lower side of coxae with deep silvery adpressed pubescence. Legs smooth, unarmed; with long erect hairs; the bases of tibiae and tarsi with dense short hairs.

Rh. kiritshenkoi Y. Popov belongs to subgenus *Oncauchenius* Stål and

it is very close to *Rh. abramovi* Osh. This species may easily be distinguished from each other at first glance: *Rh. kiritshenkoi* Y. Popov, having a longer pronotum, and the lower side of body and legs pitch-black. The main distinguishing features are as follows;

<i>Rh. kiritshenkoi</i> Y. Popov	<i>Rh. abramovi</i> Osh.
Posterior half of frons more prominent (fig. 2).	Frons less prominent (fig. 3).
Vertex and occiput strongly raised and prominent (fig. 2).	Vertex and occiput lower (fig. 3).
The white spot between the ocelli small and pale.	The white spot large and more obvious.
Hillocks of pronotum high, their inside walls almost perpendicular to the body.	Hillocks less developed.
End of scutellum and lateral margins strongly bent up.	End and lateral margins less strongly bent up.
Cubital cell square or almost square (fig. 4).	Cubital cell elongated (fig. 5).
Genital segment dark brown from above.	Genital segment red throughout.
Spines of parandrium close together.	Spines farther apart.

Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.
Tchatkal ridge: Arkit, 1700—1900 m.; Sary-Tchilek lake, 2000—2500 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the subalpine meadow, along rivers. Often under stones at some water. This species prefers more humid places than *Rh. abramovi* Osh.

Distribution. Mid-Asia: Tien-Shan and Pamir-Alay.

***Rhinocoris* (s. str.) *iracundus* (Poda)**

Djalal-Abad, 900 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 900—1200 m.
Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1700 m.; Karasu lake, 2000 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1700—1900 m.; Sary-Tchilek lake, 2000 m. Pskem ridge: Pskem, 1700 m. Ugam ridge: Syjak, 1700 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain (Asanova, 1962); Central Tien-Shan; Bukhara (Oshanin, 1906); Gissar ridge — the valley of the Varzob river, Kondara, Kvak (Kiritshenko, 1951a); Darvaz ridge (Muminov, 1961a) and Golodnaya Desert (Yachontov, 1962).

Distribution. Central and Southern Europe, Turkey, Iran, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Altay), North-Eastern India.

Rhinocoris (s. str.) monticola Osh.

Fergana ridge: Kara-Alma, 1700—2000 m.; Karasu lake, 2000 m. Tchatkal ridge: Arkit, 1800 m.; Sary-Tchilek lake, 2000—2200 m. Ugam ridge: Syjak, 1800 m.

In the mountain steppe formations, the tree-shrub zone, the mixed forest.

This species is widely distributed through the whole of the Mid-Asian part of the USSR in mountain regions.

Distribution. Iran, Mid-Asia.

Rhinocoris (s. str.) monticola f. jucunda (Horv.)

Kok-Yangak, 2 ♂♂ and 2 ♀♀, 1200 m. Pskem ridge: Pskem, 3 ♂♂ and 9 ♀♀, 1600 m.

In the steppe formations and the tree-shrub zone.

This form is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Turkey, Iran, Transcaucasus, Mid-Asia.

Coranus subapterus (De Geer)

Fergana ridge: Karasu lake, 1 ♂, 1900 m.; the valley of the Karasu river, 1 ♀, 1700 m. Utchterek, 1 ♀, 1400 m. Tchatkal ridge: Sary-Tchilek lake, 1 ♂ and 1 larv., 2500 m.

In the mountain formations, the tree-shrub zone, the mixed forest, the subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR from South-Western Kazakhstan — Kazalinsk; Central Tien-Shan — Talass ridge; Pamir-Alay (Oshanin, 1906), and also from the Kirghizian ridge — Tokmak; Karategin ridge (Kiritshenko, 1931); Golodnaya Desert (Yachontov, 1962); Turkestan ridge — Guralash reserve (Pazhitnova, 1952) and Kopet-Dagh ridge — Kaudan (Kiritshenko, 1931).

Distribution. Palaearctic region.

PHYMATIDAE

Phymata crassipes (L.)

Fergana ridge: Kara-Alma, 1 ♂ and 1 ♀, 1700 m. Utchterek, 1 ♂, 1400 m. Pskem ridge: Pskem, 2 ♀♀, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR only from Central Kazakhstan — Kokshetau mountain and Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. Palaearctic region.

PIESMATIDAE

Piesma capitatum (Wolff)

Fergana ridge: Kara-Alma, 2 ♀♀, 1800 m. Ugam ridge: Syjak, 1 ♂ and 1 ♀, 1600 m.

In the mountain steppe formations, the tree-shrub zone, the mixed forest.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962); Ugam ridge — Humsan, and also from Djilaryk (Oshanin, 1906).

Distribution. Europe, North Africa, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk), Mongolia.

Piesma maculatum (Lap.)

Djalal-Abad, 2 ♀♀, 800 m.; Bazar-Kurgan, 1 ♂ and 1 ♀, 1000 m.

In the semidesert and steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. Europe, North Africa, the European part of the USSR, Caucasus, Siberia (Olekminsk), Mongolia.

Piesma maculatum f. viridis (Jak.)

Suzak, 1 ♂ and 1 ♀, 800 m.

In the subdesert and steppe formations.

This form has been recorded in the Mid-Asian part of the USSR only from the Tashkent district (Oshanin, 1906).

Distribution. Central and Southern Europe, North Africa, the South European part of the USSR (the steppe zone), Caucasus, Mid-Asia.

Piesma kochiae (Beck.)

Fergana ridge: the valley of the Karasu river, 3 ♀♀, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone. On *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR only from Central Tien-Shan and Tashkent (Oshanin, 1906).

Distribution. Southern Europe, the South European part of the USSR (the steppe zone), Caucasus, Mid-Asia.

TINGIDAE

TINGINAE

Galeatus inermis (Jak.)

Ugam ridge: Syjak, 2 ♀♀, 1400 m.

In the steppe formation.

This species has been recorded in the Mid-Asian part of the USSR

from the foothills of Talass ridge, Fergana — Leninabad, Golodnaya Desert (South Eastern Kizyl-Kum Desert), Tashkent and Bukhara (Oshanin, 1906), and also from Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. South-East of the European part of the USSR, Caucasus, Mid-Asia.

Stephanitis (s. str.) pyri (Fabr.)

Ugam ridge: Syjak, 2 ♂♂ and 3 ♀♀, 1700 m.

In the steppe and mountain formations, the tree-shrub zone, the mixed forest. It is a pest of fruit trees.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent (Oshanin, 1906), Gissar ridge — Kondara (Kiritshenko, 1951a), and Darvaz ridge (Muminov, 1961a).

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Iraq, Turkey, the European part of the USSR except for North Caucasus, Mid-Asia.

Tingis (s. str.) auriculata (Costa)

Pskem ridge: Pskem, 5 ♂♂ and 3 ♀♀, 1700 m. Ugam ridge: Syjak, 1 ♂ and 2 ♀♀, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone. On *Turgenia latifolia*.

This species has been recorded in the Mid-Asian part of the USSR from Khumsan (Ugam ridge) and Tashkent (Oshanin, 1906), and also from Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, the South of the European part of the USSR, Caucasus, Mid-Asia.

Tingis (s. str.) rotundicollis (Jak.)

Pskem ridge: Pskem, 1 ♂, 1700 m.

The tree-shrub zone.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Southern Europe, Turkey, Crimea, Caucasus, Mid-Asia.

Tingis (s. str.) leptochila Horv.

Pskem ridge: Pskem, 2 ♀♀, 1600 m. Ugam ridge: Syjak, 2 ♂♂ and 2 ♀♀, 1700 m.

In the steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Alma-Ata, Karatau ridge (Southern Kazakhstan) — Michaylovka, Biylikul lake; Tashkent and Thinaz (Oshanin, 1906), Golodnaya Desert (Yachontov, 1962).

Distribution. Mid-Asia.

Tingis (*Tropidocheila*) pilosa Humm.

Ugam ridge: Syjak, 1 ♂ and 2 ♀♀, 1700 m.

The tree-shrub zone. On Labiatae.

This species has been recorded in the Mid-Asian part of the USSR Central Kazakhstan — Kokshetau mountain (Asanova, 1962) and from Central Tien-Shan — Temirlik (Oshanin, 1906).

Distribution. Palaearctic region.

Tingis (*Tropidocheila*) pauperata (Put.)

Pskem ridge: Pskem, 1700 m. Ugam ridge: Syjak, 1700 m.

In the steppe formations, the tree-shrub zone. On *Lamium album*.

This species has been recorded in the Mid-Asian part of the USSR only from Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Southern Europe, the South European part of the USSR, Caucasus, Mid-Asia.

Catoplatus citrinus Horv.

Djalal-Abad, 800 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 900—1200 m. Fergana ridge: the valley of the Karasu river, 1600—1800 m, Pskem ridge: Pskem, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Transcaucasus, Mid-Asia.

Catoplatus fulvicornis (Jak.)

Ugam ridge: Syjak, 2 ♂♂ and 1 ♀, 1600 m.

In the steppe formations, and the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Karatau ridge (Southern Kazakhstan) — Michaylovka; the foothills of the Tashkent Alatau, and Turkmenia — Ashkabad, Merv, Serachs (Oshanin, 1906).

Distribution. Afghanistan, Transcaucasus, Mid-Asia.

Dictyla echii (Schrk.)

Fergana ridge: Kara-Alma, 1700—1900 m.; Kizyl-Unkur, 1600 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.; Nanay, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On Boraginaceae.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Przhevalsk; Tashkent Alatau (Oshanin, 1906).

Distribution. Europe, North Africa, Syria, Turkey, Iran, Israel, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Omsk).

Octacysta rotundata (H.-S.)

Tchatkal ridge: Arkit, 1600 m. Pskem ridge: Pskem, 1600—1800 m. In the steppe and mountain steppe formations, along rivers. On *Rinderatetraspis*.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent Alatau and the Fergana Valley — Leninabad (Oshanin, 1906).

Distribution. Southern Europe, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

Monosteira (s. str.) **discoidalis** (Jak.)

Djalal-Abad, 1 ♂ and 1 ♀, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from the Kirghizian ridge — Tokmak; Karatau ridge — Michaylovka; Tashkent Alatau; the Fergana Valley — Leninabad; Samarkand and Turkmenia — Merv (Oshanin, 1906), and also from the Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Afghanistan, Mid-Asia.

AGRAMMATINAE

Agramma atricapilla (Spin.)

Djalal-Abad, 1 ♂, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan — Atbashi; Karatau ridge — Byilikul lake; South-Western Kazakhstan — Kizyl-Orda; Tashkent and Nukus (Oshanin, 1906).

Distribution. South Europe, North Africa, Israel, Iraq, Turkey, South of the European part of the USSR, Caucasus, Mid-Asia.

PYRRHOCORIDAE

Scantius aegyptius (L.)

Djalal-Abad, 800 m.; Suzak, 800 m. Fergana ridge: the valley of the Karasu river, 1600—1800 m. Utchterek, 1400 m. Tchatkal ridge: Arkit, 1700 m.; Parkent reserve, 1400 m. Ugam ridge: Syjak, 1600 m.

In semidesert, steppe and mountain steppe formation, the tree-shrub zone, the mixed forest, along rivers.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. South Europe, North Africa, Israel, Syria, Turkey, Iran, the South European part of the USSR, Caucasus, Mid-Asia.

***Pyrrhocoris apterus* (L.)**

Fergana ridge: Kara-Alma, 1600—1900 m.; Kizyl-Unkur, 1600—1800 m.; Karasu lake, 2000—2500 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1400—1800 m.; Sary-Tchilek, 2000—2500 m.; Parkent reserve, 1400—1700 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1900 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadows, along rivers; beneath bark and roots of *Juniperus semiglobosa*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962); Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962); Fergana Valley (Oshanin, 1910); Golodnaya Desert (Yachontov, 1962); Zeravshan Valley (Oshanin, 1870); Alay ridge — Gultcha, Khodjakel-Ata (Kiritshenko, 1931); Gissar ridge — Kondara, Kvak, Ruidasht, Gushary, Ziddy, Kutarm-Akba (Kiritshenko, 1951a) and Darvaz ridge (Muminov, 1961a).

Distribution. Palaearctic region.

***Pyrrhocoris marginatus* (Kol.)**

Fergana ridge: Kizyl-Unkur, 2 ♀♀, 1700 m.; the valley of the Karasu river, 2 ♂♂ and 2 ♀♀, 1600—1800 m. Utcherek, 1 ♂ and 1 ♀, 1400 m. Ugam ridge: Nanay, 1 ♂, 16 ♀♀.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan; Karatau ridge — Dmitrovka (Southern Kazakhstan); Tashkent Alatau (Oshanin, 1906), and also from the Frunze district — Djilaryk (Linnavuori, 1953).

Distribution. Central and Southern Europe, North Africa, Syria, Turkey, the European part of the USSR, Caucasus, Mid-Asia.

LYGAEIDAE

LYGAEINAE

***Tropidothorax leucopterus* (Goeze)**

Fergana ridge: Kara-Alma, 2 ♂♂ and 1 ♀, 1600 m. Ugam ridge: Syjak, 3 ♂♂ and 5 ♀♀, 1400 m.

In the steppe and mountain steppe formations, the mixed forest, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from the Tashkent Alatau (Oshanin, 1906), Golodnaya Desert (Yachontov, 1962) and Zeravshan Valley — Yagnob (Oshanin, 1910).

Distribution. Central and Southern Europe, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

Lygaeus equestris (L.)

Bazar-Kurgan, 900—1200 m.; Kok-Yangak, 1200 m. Fergana ridge: Kara-Alma, 1600—1800 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1400—1800 m.; Sary-Tchilek, 2000 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Astragalus*, *Spiraea* and *Artemisia*, and also on *Juniperus semiglobosa* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain and Bet-Pak-Dala Desert (Asanova, 1962), Central Tien-Shan; Tashkent Alatau (Oshanin, 1891) and Gissar ridge — Kondara, Kvak, Ruidasht, Anzob pass, Kutari-akba, Gushary, Ziddy (Kiritshenko, 1951a); Golodnaya Desert (Yachontov, 1962).

Distribution. Palaearctic region.

Lygaeus rubriceps Horv.

Djalal-Abad, 2 ♂♂, 800 m.; Kok-Yangak, 1 ♂, 1200 m. Tchatkal ridge Sary-Tchilek, 2 ♂♂ and 4 ♀♀, 2000—2500 m. Ugam ridge: Syjak, 3 ♂♂ and 3 ♀♀, 1800 m; Nanay, 3 ♂♂, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the sparse forest. On *Artemisia*, *Achillea millefolium*, also on *Perovskia* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Tashkent Alatau (Oshanin, 1891), Fergana Valley (Oshanin, 1910), Alay ridge — Taldyk pass, Sary-Tash (Kiritshenko, 1931), Golodnaya Desert (Yachontov, 1962), Turkestan ridge — Guralash reserve (Pazhitnova, 1952), Gissar ridge — Kondara, Kvak, Ruidasht (Kiritshenko, 1951a), "Tigrovaya Balka" reserve (Kiritshenko, 1959) and Turkmenia — Kiuren-Dagh (Pazhitnova and Kiranova, 1956) and Repetek (Oshanin, 1910).

Distribution. Iran, Afghanistan, Mid-Asia.

Melanocoryphus albomaculatus (Goeze)

Fergana ridge: the valley of the Karasu river, 1 ♂ and 5 ♀♀, 1600—1800 m. Tchatkal ridge: Arkit, 2 ♂♂, 1700 m.; Sary-Tchilek, 2000 m, 1 ♂, Ugam ridge: Nanay, 1 ♂ and 1 ♀, 1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Tashkent Alatau, Fergana and Turkmenia (Oshanin, 1891), and also from the Gissar ridge (Kiritshenko, 1951a and 1952) and Kopet-Dagh (Oshanin, 1910).

Distribution. Central and Southern Europe, Algeria, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

Melanocoryphus superbus (Poll.)

Ugam ridge: Syjak, 2 ♂♂ and 1 ♀, 1500 m.

In the steppe formation and along rivers. On the ground and beneath stones in the rocky areas.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan (Asanova, 1962), Central Tien-Shan, Tashkent Alatau, Fergana Valley (Oshanin, 1891) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, Iran, the European part of the USSR (the steppe zone), Caucasus, Mid-Asia.

Melanocoryphus tristrami (Dgl. & Sc.)

Kok-Yangak, 1 ♂ and 2 ♀♀, 900 m.

In the steppe formations, along rivers. On the ground and beneath stones.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Southern Europe, North Africa, Israel, Syria, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

Melanocoryphus heydeni Put.

Melanocoryphus curtipennis (nom. nud.) Kiritshenko, 1951a.

Pskem ridge: Pskem, 2 ♂♂ and 3 ♀♀, 1800 m.

In the steppe and mountain steppe formations. On the ground and beneath stones.

This species was called *Melanocoryphus curtipennis* Kir. nom. nud. from the Gissar ridge — Kondara, in literature (Kiritshenko, 1951a), but it was not formally described. At the present time Bulgarian hemipterist H. Iosifov is revising the genus *Melanocoryphus* and includes this species as a synonym of *M. heydeni* Put.

This species has been recorded in the Mid-Asian part of the USSR in the material of the Zoological Institute of the Academy of Science (Leningrad) from Syr-Darya — Djulek (Kozhanchikov, 1910) and Gissar ridge — Novobad-Rochaty (Rubzov, 1943), Varzob, Lyutchob, Obi-Safed (Kondara river), Kondara (Kiritshenko, 1944), Khodja-Obi-Garm (Kiri-janova, 1944), Khozor-Metch, Iskander-Kul lake (Kiritshenko, 1947).

Distribution. Mid-Asia.

Apterola lowni (Saund.)

Djalal-Abad, 1 ♂ and 1 ♀, 800 m.

The semidesert and steppe formations. On the ground and beneath stones, and also under *Tanacetum* (Kiritshenko, 1952).

This species has been recorded in the Mid-Asian part of the USSR

from Southern Kazakhstan (Oshanin, 1910), Samarkand, Djizak (Oshanin, 1906) and from the Gissar ridge (Kiritshenko, 1951a and 1952).

Distribution. Cyprus, Israel, Syria, Turkey, Caucasus, the South-Eastern part of the USSR, Mid-Asia.

***Lygaeosoma reticulatum* (H.-S.)**

Fergana ridge: the valley of the Karasu river, 2 ♀♀, 1700 m. Pskem ridge: Pskem, 1 ♂, 1800 m.

In the steppe and mountain steppe formations, along rivers. On the ground and beneath stones, and also under *Salix*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, West Tien-Shan, Fergana Valley and Turkmenia (Oshanin, 1906), and also from the Zeravshan Valley (Oshanin, 1870) Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a) and Darvaz ridge (Muminov, 1961a).

Distribution. Southern Europe, North Africa, Israel, Syria, Turkey, Iran, the South European part of the USSR, Caucasus, Mid-Asia, South-Western Siberia, Mongolia.

***Xerophagius aurora* (Kir.)**

Djalal-Abad, 1 ♂, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Susamyr ridge (the Upper Naryn river), Turkmenia — Termez (Kiritshenko, 1913), and also from North-Western Kazakhstan (Kiritshenko, 1952) and Southern Kazakhstan — Koksengir mountain and Bet-Pak-Dala Desert (Asanova, 1962).

Distribution. Mid-Asia, Mongolia.

***Nysius* (s. str.) *ericae* (Schill.)**

Fergana ridge: Kizyl-Unkur, 2 ♂♂ and 2 ♀♀, 1700 m. Tchatkal ridge: Sary-Tchilek, 2 ♂♂ and 4 ♀♀, 200 m.; Parkent reserve, 3 ♂♂, 1400 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Artemisia vulgaris*.

This species has been recorded in the Mid-Asian part of the USSR from Fergana, Alay (Oshanin, 1906), Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Darvaz ridge (Muminov, 1961a) and Turkmenia — Repetek, Germab (Oshanin, 1910).

Distribution. Palaearctic region, also Nearctic region (Alaska, Canada, USA).

***Nysius* (s. str.) *groenlandicus* (Zett.)**

Fergana ridge: Kara-Alma, 1800—2000 m.; Karasu lake, 2000—2500 m. Tchatkal ridge: Sary-Tchilek, 2000—2500 m.

In the mountain steppe formations, the mixed forest, the subalpine meadow. On *Artemisia persica*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan; Talass ridge (Oshanin, 1910), Alay-Shachimardan; Fergana — Isfara, Zhiburgan and Samarkand district (Oshanin, 1906), and also from Tchatkal ridge — Sary-Tchilek (Popov, 1960), Alay ridge and Pamir — Kara-Kul lake, Kara-art and Sary-Kol (Kiritshenko, 1931) and Gissar ridge — Kondara, Ruidasht, Ziddy, Kutarm-Akba (Kiritshenko, 1951a).

Distribution. The arctic zone of Eurasia and America, and also the mountain regions of Tien-Shan and Pamir-Alay.

***Nysius (Macroparius) cymoides* (Spin.)**

Djalal-Abad, 1 ♂ and 2 ♀♀, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Djizak and Aschabad (Oshanin, 1906), also from Turkmenia — Kyuren-Dagh (Pazhitnova and Kiranova, 1956).

Distribution. Southern Europe, North Africa, Sahara, Sudan, Israel, Syria, Iraq, Turkey, Iran, the South European part of the USSR, Caucasus, Mid-Asia.

***Nysius (Macroparius) graminicola* (Kol.)**

Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain (Asanova, 1962) and the Karatau ridge (Oshanin, 1906), Gissar ridge — Kondara (Kiritshenko, 1951a). "Tigrovaya Balka" reserve (Kiritshenko, 1959) and Turkmenia — Krasnovodsk (Oshanin, 1910) and Kyuren-Dagh (Pazhitnova and Kiranova, 1956). Golodnaya Desert (Yachontov, 1962).

Distribution. Southern Europe, North Africa, Syria, Turkey, Crimea, Caucasus, Mid-Asia.

***Nysius (Macroparius) graminicola* f. *lucida* f. nov.**

Tchatkal ridge: Sary-Tchilek lake, 3 ♂♂ and 6 ♀♀, 2000 m. Pskem ridge: Pskem, 2 ♀♀, 1600 m. Ugam ridge: Syjak, 1 ♀, 1700 m.

In the steppe and mountain steppe formations.

This form differs from the typical form by the almost complete absence of the black colour on the pronotum and hemelytra, by the light punctation and by the smaller size.

This form is recorded only from the above-mentioned locality.

Distribution. Mid-Asia.

***Nysius (Macroparius) helveticus* (H.-S.)**

Tchatkal ridge: Sary-Tchilek lake, 1 ♂ and 4 ♀♀, 2000 m.

The mountain steppe formations. On *Medicago* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962) and the Turkestan ridge — Guralash reserve (Pazhitnova, 1952).

Distribution. Europe, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

***Nysius (Macroparius) helveticus* f. *ochraceus* (Pop.)**

Nysius ochraceus Kiritshenko, 1951a nom. nud.

Djalal-Abad, 800 m. Fergan ridge. Karasu lake, 2000 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Parkent reserve, 1400—1600 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Origanum tyttanthum*, *Nepeta pannonica*, *Hissopus seravschanicus*, *Achillea filipendulina* and *Atraphaxis pyrifolia*.

At first these specimens were determined as *Nysius ochraceus* Kir. (Popov, 1960). When I studied the material of this species in the Zoological Institute of the Academy of Sciences I came to the conclusion that *N. ochraceus* Kir. was a form of *N. helveticus* (H.-S.), or possibly a subspecies. As this form has never been described I give a description below.

Punctuation light, of one colour as a rule, or darker in some places; body with ochre or ochre-red spots, fused in many places. There are often two ochre spots on the membrane at the posterior margin of the hemelytra.

This form has been recorded in the Mid-Asian part of the USSR in the material of the Zoological Institute of the Academy of Sciences (Leningrad) from the Talass ridge — Aksu river (Shulpin, 1935); Amanutan to the north from Samarkand (Gussakovski, 1932), Fergana ridge — Kyzartouzy on the Karasu river (Bianki, 1930), Uzbek-Gava (Kiritshenko, 1937), Turkestan ridge — Shurab (Lopatin, 1956), Gissar ridge — Tchash, Zavar (Kuznetzova, 1929), Kondara, Kvak (Gussakovski, 1937, Luppova, 1955), Khodja-Obi-Garm (Kiritshenko, 1943), Khozor-Metch, Iskander-Kul lake (Kiritshenko, 1947).

Distribution. Mid-Asia.

***Ortholomus punctipennis* (H.-S.)**

Fergana ridge: Kara-Alma, 1 ♂ and 3 ♀♀, 1700 m.; Kizyl-Unkur, 3 ♀♀ and 1 ♀, 1400 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Atraphaxis pyrifolia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan, Fergana Valley (Oshanin, 1906), Tchatkal ridge — Arkit (Popov, 1960) and Alay ridge (Oshanin, 1910).

Distribution. Europe, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk), Mongolia.

CYMINAE

Cymus clavicularis (Fall.)

Djalal-Abad, 800 m.; Kok-Yangak, 900—1200 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Central Tien-Shan, Djambul, Tashkent Alatau and Fergana (Oshanin, 1910), and also from the northern Kirghizia — Tokmak (Linnavuori, 1953), and Tajikistan — Gissar ridge (Oshanin, 1910); Kiritschenko, 1951) and Darvaz ridge (Muminov, 1961a).

Distribution. Palaearctic region, and also Nearctic region (USA).

Cymus obliquus Horv.

Ugam ridge: Nanay, 2 ♂♂ and 5 ♀♀, 2300 m.

In the mountain steppe formation and the subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962) and from Djambul (the southern Kazakhstan).

Distribution. Central and Southern Europe, the South European part of the USSR, Mid-Asia.

Cymus glandicolor Hahn.

Fergana ridge: the valley of the Karasu river, 2 ♂♂, 1600 m. Utchte-rek, 1 ♂, 1400 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Central Tien-Shan, Southern Kazakhstan and Fergana (Oshanin, 1910), and also from Gissar ridge — "Tigrovaya Balka" reserve (Kiritschenko, 1959).

Distribution. Central and Southern Europe, Algeria, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

ISCHNORRHYNCHINAE

Kleidocerys resedae (Panz.)

Kleidocerys betulinus Oshanin.

Tchatkal ridge: Sary-Tchilek, 3 ♂♂ and 9 ♀♀, 2200 m.

The mountain steppe formation. On *Spiraea hypericifolia*.

At first these specimens were determined as *Kleidocerys betulinus* Osh. in litt. sp. nov. (Popov, 1960). When I compared them with *K. resedae* (Panz.) from the European part of the USSR, I did not find enough differences to warrant it the status of an independent species. Therefore I consider *K. betulinus* a synonym to *K. resedae* (Panz.).

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), the Gissar ridge — Kondara (Kiritschenko, 1951a), and Tchatkal ridge — Arkit, Sarry-Tchilek lake (Popov, 1960).

Distribution. Palaearctic region, and also Nearctic region (Canada, USA).

BLISSINAE

Ischnodemus sabuleti (Fall.)

Fergana ridge: Kizyl-Unkur, 2 ♂♂ and 2 ♀♀, 1700 m. Pskem ridge: Pskem 2 ♂♂ and 6 ♀♀, 1700 m.; Ugam ridge: Nanay, 1 ♂ and 3 ♀♀, 2300 m.; Syjak, 1 ♂ and 5 ♀♀, 1700 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan, Djambul and Tashkent (Oshanin, 1910), and also from Tchimbkent — Djilaryk, Alma-Ata (Linnavuori, 1953) and Gissar ridge — Kondara (Kiritschenko, 1951a).

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, the European part of the USSR, Caucasus, Mid-Asia.

HENESTARINAE

Henestaris halophilus (Burm.)

Fergana ridge: Karasu lake, 2 ♂♂, 2000 m.

The mountain steppe formation. In the rocky areas. It lives on some salt-marches in semidesert and steppe habitat.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain and Bet-Pak-Dala Desert (Asanova, 1962), Central Tien-Shan — Iliysk, Kok-Djigda; South-Western Kazakhstan — Kizyl-Orda and Tashkent (Oshanin, 1906), Fergana — Andijan, Margelan and Leninabad; Tchinas and Djambul (Oshanin, 1910).

Distribution. Central and Southern Europe, North Africa, Turkey, the European part of the USSR, Caucasus, Mid-Asia.

Engistus exanguis Stål

Djalal-Abad, 2 ♀♀, 800 m.

The semidesert formation, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Gissar ridge — "Tigrovaya Balka" reserve (Kiritschenko, 1959), Turkmenia — Repetek (Linnavuori, 1953) and Turkestan ridge — Shurab (Popov, 1961); Golodnaya Desert (Yachontov, 1962).

Distribution. North Africa, Israel, Syria, Iran, South-East European part of the USSR, Mid-Asia.

GEOCORINAE

Geocoris ater (Fabr.)

Tchatkal ridge: Parkent reserve, 2 ♀♀, 1200 m.

The steppe formation and along rivers. Beneath stones and *Polygonum*.

This species has been recorded in the Mid-Asian part of the USSR from steppes, foothills and mountains (Oshanin, 1906), and also from Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. Palaearctic region, and also Nearctic region (USA).

Geocoris ater f. steveni Put.

Tchatkal ridge: Parkent reserve, 2 ♂♂, 3 ♀♀ and 1 larva, 1200 m.

The steppe formation and along rivers. Beneath stones and *Polygonum*.

This form has been recorded in the Mid-Asian part of the USSR from Kizyl-Orda, Tchimkent, Djizak, Tashkent, Samarkand, Fergana Valley — Osh, Andijan, Leninabad (Oshanin, 1910) and Turkmenia (Oshanin, 1906).

Distribution. Europe, the European part of the USSR, Caucasus, Mid-Asia.

Geocoris fedtschenkoi Reut.

Fergana ridge: Kara-Alma, 1 ♂, 1600 m. Utchterek, 1 ♀, 1400 m.

In the steppe and mountain steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from South-Western Kazakhstan — Kizyl-Orda, Djulek (Oshanin, 1910), Tashkent district (Oshanin, 1906), and also from the Gissar ridge — Kondara (Kiritschenko, 1951a) and "Tigrovaya Balka" reserve (Kiritschenko, 1959).

Distribution. Hungary, Egypt, the South European part of the USSR, Mid-Asia.

ARTHENEINAE

Artheneis alutacea Fieb.

Djabal-Abad, 1 ♂ and 1 ♀, 800 m.; 1 ♂ and 5 ♀♀, 800 m. Fergana ridge: Kizyl-Unkur, 1 ♀, 1600 m.

In the semidesert, steppe and mountain steppe formations, along rivers. On *Myricaria alopecuroides*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Iliysk (Oshanin, 1906), and also from Kizyl-Orda, Tashkent (Oshanin, 1910), Merv. Amu-Daria and Syr-Dariya (Linnavuori, 1953); Golodnaya Desert (Yachontov, 1962).

Distribution. South Europe, North Africa, Israel, Syria, Iraq, Turkey, Caucasus, Mid-Asia.

Holccerum diminutum Horv.

Ugam ridge: Syjak, 1 ♀, 1400 m.

The steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Djambul (Oshanin, 1910), Tashkent (Oshanin, 1906) and Gissar ridge — Kondara (Kiritschenko, 1951a).

Distribution. The South-East European part of the USSR, Mid-Asia.

HETEROGASTRINAE

Heterogaster cathariae (Geoffr.)

Fergana ridge: Kizyl-Unkur, 1700 m.; Karasu lake, 2000—2200 m. Tchatkal ridge: Sary-Tchilek lake, 2000—2200 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the subalpine meadow. On *Nepeta pannonica*.

This species has been recorded in the Mid-Asian part of the USSR from the Namangan district — Padsha-Ata (Oshanin, 1910), Gissar ridge — Kondara (Kiritschenko, 1951a), and Djilaryk (Linnavuori, 1953).

Distribution. Central and Southern Europe, Morocco, Algeria, Turkey, the European part of the USSR, Caucasus, Mid-Asia.

Heterogaster cathariae f. bicolor Kol.

Fergana ridge: Kizyl-Unkur, 1 ♂ and 3 ♀♀, 1700 m.; the valley of the Karasu river, 2 ♀♀, 1700 m. Tchatkal ridge: Arkit, 2 ♂♂ and 2 ♀♀, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers.

This form has been recorded in the Mid-Asian part of the USSR only from the type locality.

Distribution. Southern Europe, North Africa, Syria, Turkey, Caucasus, Mid-Asia.

Heterogaster artemisiae Schill.

Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.; the valley of the Karasu river, 1600—1800 m. Tchatkal ridge: Arkit, 1400—1800 m.; Parkent reserve, 1400—1600 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Nepeta pannonica* and *Origanum tyttanthum*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962), Alma-Ata; Djizak, Leninabad, Karategin (Oshanin, 1910), Tchatkal ridge — Arkit (Popov, 1960) and Gissar ridge — Kondara (Kiritschenko, 1951a), and also from the Karatau ridge (Kazakhstan) and Djilaryk (Linnavuori, 1953).

Distribution. Central and Southern Europe, Morocco, Algeria, Syria, Turkey, the European part of the USSR (the steppe and forest zones), Caucasus, Mid-Asia.

Heterogaster parens Jak.

Fergana ridge: Kara-Alma, 1600—1800 m. Tchatkal ridge: Sary-Tchilek, 1800—2500 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow. On *Nepeta pannonica* and *Origanum tyttanthum*.

This species has been recorded in the Mid-Asian part of the USSR from Alay (Yakovlev, 1902) and Gissar ridge — Kondara, Kvak, Ruidasht (Kiritshenko, 1951a), and also from Tchatkal ridge — Sary-Tchilek lake, but *H. parens* Jak., incorrectly determined by the author, was established as *H. affinis* H.-S. (Popov, 1960).

Distribution. Mid-Asia.

Platyplax salviae (Schill.)

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 900—1200 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 900—1200 m. Fergan ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.; the valley of the Karasu river, 1600—1800 m. Pskem ridge: Pskem, 1700 m. Ugam ridge: Syjak, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Talass ridge, foothills and mountains of Fergana (Oshanin, 1910), Central Kazakhstan — Kokshetau; Southern Kazakhstan — Bet-Pak-Dala Desert (Asanova, 1962), and Alay ridge — Gultcha, Khodja-Kel-Ata (Kiritshenko, 1931).

Distribution. Southern Europe, North Africa, Israel, Syria, Turkey, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

OXYCARENINAE

Camptotelus lineolatus (Schill.)

Pskem ridge: Pskem, 1 ♂, 1800 m.

The mountain steppe formation.

This species is recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau and Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. Central and Southern Europe, Turkey, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

Leptodemus minutus (Jak.)

Pskem ridge: Pskem, 2 ♂♂, 1700 m.

The steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Kazakhstan — Djambul, Tchinaz; Tashkent, Le-

ninabad and Samarkand (Oshanin, 1910), and also from the Gissar ridge — Kvak (Kiritshenko, 1951a) and Golodnaya Desert (Linnavuori, 1953).

Distribution. The South European part of the USSR, Caucasus, Mid-Asia.

***Leptodemus bicolor* Lindb.**

Djalal-Abad, 1 ♂ and 2 ♀♀, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Gissar ridge — Kondara as *Cyproplax avenae* Lindb. (Kiritshenko, 1951a) and Golodnaya Desert (Linnavuori, 1953).

Distribution. Mid-Asia.

***Microplax interrupta* (Fieb.)**

Pskem ridge: Pskem, 2 ♂♂ and 1 ♀, 1800 m.

The steppe formation. On the ground in rocky areas.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan (Asanova, 1962), Central Tien-Shan — Przhevalsk; foothills and mountains of the Fergana Valley (Oshanin, 1906), and also from the Kirghizian ridge — Djilaryk (Linnavuori, 1953), Pamir, Alay ridge (Oshanin, 1910) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Southern Europe, North Africa, Israel, Syria, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

***Metopoplax origani* (Kol.)**

Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m. Tchatkal ridge: Arkit, 1500—1800 m.; Parkent reserve, 1400—1600 m. Pskem ridge: Pskem, 1700 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Achillea filipendulina* and *Atraphaxis pyrifolia*.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan (Asanova, 1962), Tchatkal ridge — Arkit (Popov, 1950), Karatau ridge (Linnavuori, 1953), Turkestan ridge — Guralash reserve (Pazhitnova, 1952) and Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, North Africa, Israel, Turkey, the European part of the USSR, Caucasus, Mid-Asia.

***Oxycarenus pallens* (H.-S.)**

Djalal-Abad, 1 ♂ and 2 ♀♀, 800 m. Fergana ridge: Kara-Alma, 4 ♂♂ and 4 ♀♀, 1700 m.

In semidesert and steppe formations, the tree-shrub zone. On Graminea.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan (Asanova, 1962), Frunze, Djambul, Tashkent, Leninabad, Kokand and Samarkand (Oshanin, 1910); Linnavuori, 1953), Golodnaya Desert (Yachontov, 1962), and also from Gissar ridge — the valley of Varzob river, Kondara, Kvak (Kiritshenko, 1951a) and "Tigrovaya Balka" reserve (Kiritshenko, 1959).

Distribution. Southern Europe, North Africa, Israel, Syria, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

***Oxycarenum lacteus* Kir.**

Djalal-Abad, 4 ♂♂ and 4 ♀♀, 800 m. Fergana ridge: Kara-Alma, 2 ♂♂ and 5 ♀♀, 1700 m. Tchatkal ridge: Arkit, 1 ♂ and 4 ♀♀, 1600 m. Pskem ridge: Pskem, 2 ♂♂, 1700 m. Ugam ridge: Nanay, 1 ♂ and 2 ♀♀, 1600 m.

In the semidesert and steppe formations, the tree-shrub zone, along rivers. On *Centaurea kazakorum*, and also on *Cousinia* (Kiritshenko, 1951a).

This species has been recorded in the Mid-Asian part of the USSR from Uzbekistan — Aman-Kutan, Termez; Turkmenia — Tchardjou (Farab) and Tadzhikistan — Gissar ridge (Kiritshenko, 1951a).

Distribution. Mid-Asia.

RHYPAROCHROMINAE

***Icus angularis* Fieb.**

Pskem ridge: Pskem, 1 ♂, 1700 m.

The steppe formation. In rocky areas.

This species has been recorded in the Mid-Asian part of the USSR from Tchimkent (Kazakhstan), Tashkent (Oshanin, 1910) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, North Africa, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

***Megalonotus chiragra* (Fabr.)**

Fergana ridge: Karasu lake, 2 ♀♀, 2500 m. Tchatkal ridge: Sary-Tchilek lake, 2 ♂♂ and 5 ♀♀, 2000—2500 m.

In the mountain steppe formation, the sparse forest, the subalpine meadow. On the ground and beneath stones, and also under *Artemisia* and *Potentilla*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Central Tien-Shan and West-Tien-Shan (Oshanin, 1906), and also from the Zervashan Valley (Oshanin, 1870), Tchimkent district — Beklar-Bek and Frunze district (Linnavuori, 1953) and Alay ridge (Oshanin, 1910).

Distribution. Europe, North Africa, Israel, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

Megalonotus sabulicola (Thoms.)

Ugam ridge: Syjak, 2 ♀♀, 1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from the Frunze district — Djilaryk, Karatau ridge (Linnavuori, 1953), Fergana Valley — Osh, Margelan, Leninabad, and also from Tashkent (Oshanin, 1910), Golodnaya Desert (Yachontov, 1962), Gissar ridge — Kondara (Kiritschenko, 1951a), "Tigrovaya Balka" reserve (Kiritschenko, 1959), Alay ridge — Kzyl-Yar (Kiritschenko, 1931) and Darvaz ridge (Muminov, 1961a).

Distribution. Central and Southern Europe, Israel, Syria, Turkey, the European part of the USSR (the steppe zone), Caucasus, Mid-Asia.

Megalonotus hirsutus (Fieb.)

Ugam ridge: Syjak, 1 ♂ and 1 ♀, 1700 m.

The steppe formation, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR only from Central Tien-Shan.

Distribution. Central and Southern Europe, the European part of the USSR (the steppe and forested steppe zones), Caucasus, Mid-Asia, Siberia (Irkutsk).

Megalonotus colon Fieb. et Put.

Fergana ridge: Kara-Alma, 1 ♂, 1600 m.

The steppe formation in the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Gissar ridge — Kondara, Kvak (Kiritschenko, 1961) and Turkmenia (Oshanin, 1906).

Distribution. Southern Europe, Israel, Syria, Turkey, the South European part of the USSR, Caucasus, Mid-Asia.

Tropistethus fasciatus Ferr.

Tchatkal ridge: Parkent reserve, 1 ♂, 1400 m.

The steppe formation, under *Atraphaxis pyrifolia*, in rocky areas.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Southern Europe, Turkey, Crimea, Caucasus, Mid-Asia.

Pterotmetus staphyliniformis (Schill.)

Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m.

Tchatkal ridge: Arkit, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan —

Koksengir mountain (Asanova, 1962), Frunze district — Djilaryk (Linnavuori, 1953) and Ugam ridge — Khumsan (Oshanin, 1910).

Distribution. Europe, Israel, Syria, Turkey, the European part of the USSR.

***Pionosomus opacellus* Horv.**

Utchterek, 1 ♂ and 1 ♀, 1200—1400 m.

The steppe formation, along rivers. On the ground under *Polygonum*.

This species is recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan (Asanova, 1962).

Distribution. Southern Europe, the South European part of the USSR, Mid-Asia, Siberia (Krasnoyarsk).

***Ischnocoris punctulatus* (Fieb.)**

Fergana ridge: the valley of the Karasu river, 2 ♂♂ and 1 ♀, 1700 m.

The steppe formation. In rocky areas, under *Thymus*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Uzunagatch, and also from Tchimkent and Tashkent (Oshanin, 1910), Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, North Africa, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

***Lamprodema maurum* (Fabr.)**

Djalal-Abad, 2 ♂♂ and 1 ♀, 800 m. Utchterek, 2 ♀♀, 1400 m.

In the semidesert, steppe and mountain steppe formations, along rivers. Beneath *Tamarix*, *Artemisia* and *Polygonum*.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan (Asanova, 1962), Central Tien-Shan (Oshanin, 1906), Frunze district — Djil-Aryk (Linnavuori, 1953), Gissar ridge — Kvak, Ruidasht (Kiritshenko, 1951a), Turkmenia — Mangyshlak, Aktchman, Ashkhabad (Oshanin, 1906) and Merv (Linnavuori, 1953).

Distribution. Southern Europe, North Africa, Israel, Syria, Turkey, Iran, Afghanistan, Kashmir, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

***Plinthisus cautus*, nom. nov.**

Plinthisus horvathi Y. Popov, 1964, nec Saunders, 1877.

Body relatively oval, constricted in the region of the base of pronotum and hemelytra (fig. 6); 2.5 times as long as wide. Black, sometimes dark brown; antennae, rostrum and legs dark brown or light red. Surface of the body with a very small, thin, light golden, adpressed pubescence, which is easily worn off; in addition, there are long bristles on the head and ventral sternites. Body shiny with deep and fine punctation.

Head roughly triangular, strongly vaulted above, as long as wide (♂) or 1.1—1.2 times as long as wide (♀). Tylus extending to the end of jugae; four short bristles at the base of the tylus and two long bristles halfway along. Bucculae middle-sized, hardly projecting, with one short bristle at the base. Two long bristles on the frons at the inner margin of eyes. Eyes small, more or less sessile, red-brown or grey-golden, with one long bristle. Antennae long, thin; dark brown, base and end lighter; with short adpressed and some long semi-erect bristles; the first antennal segment thickest and very short, 2nd segment longest, broadened slightly at the end; 3rd segment almost fusiform, shorter than 2nd segment relative lengths of the respective antennal segments I: II: III: IV = 10: 22: 18: 20.

Pronotum almost square, 1.1 times as long as wide, slightly narrowed at the base; the anterior margin strongly emarginate, its angles hardly pointed; lateral margins with a narrow rib slightly concave; the posterior margin straight or hardly emarginate. The anterior three quarters of pronotum vaulted, without punctation, shiny; the posterior quarter flatter, with rough punctation. Scutellum black, 1.4 times as wide as long, densely and finely punctulate. Hemelytra black or blackish-brown, but lighter than head, pronotum and scutellum; covering two thirds of the venter, leaving bare the last three tergites and a small part of the preceding tergite; lateral margins straight, but slightly bent at one point slightly more than halfway along, the posterior margin sharply truncated, usually straight, its outside angles sharp; with rough dense punctation, same colour as hemelytra; clavus with four rows of punctation, the third row zigzag and chaotic; lateral margin of the corium also with irregular punctation. Rudiment membrane very small forming a narrow more or less triangular border.

Lower side of the body pitch-black, the last sternale blackish-brown with a lighter posterior margin; with short, light golden pubescence, sternites with two long bristles at the lateral margin of venter; punctation fine and dense. Gulae not high, short, semirounded. Rostrum extending to the coxae of the middle legs; the end black. Legs dark brown; the base, the end of the femora, and the tarsi light red. Anterior femora strongly thickened, with four spines on the lower surface along the anterior margin, of which the two middle spines are larger and longer; and also small spines on anterior and posterior margins. Anterior tibiae hardly arched, unarmed in the distal part; middle and posterior tibiae with some small thin spines. The first posterior tarsal segment 1.5 times as long as the 2nd and 3rd together.

Parameres (fig. 8) in the form of elongated triangular plates, with very long hypophyses and hook-shaped lobes, bent in opposite directions, keels of hypophyses long, but not high.

Holotype ♂. Length 3.75 mm.; maximum width 1.45 mm. Head: length 0.66 mm.; width 0.66 mm. Antennae: length of segment I — 0.25 mm.; II — 0.55 mm.; III — 0.45 mm.; IV — 0.50 mm. Pronotum: length 1.3 mm.; width 1.17 mm.

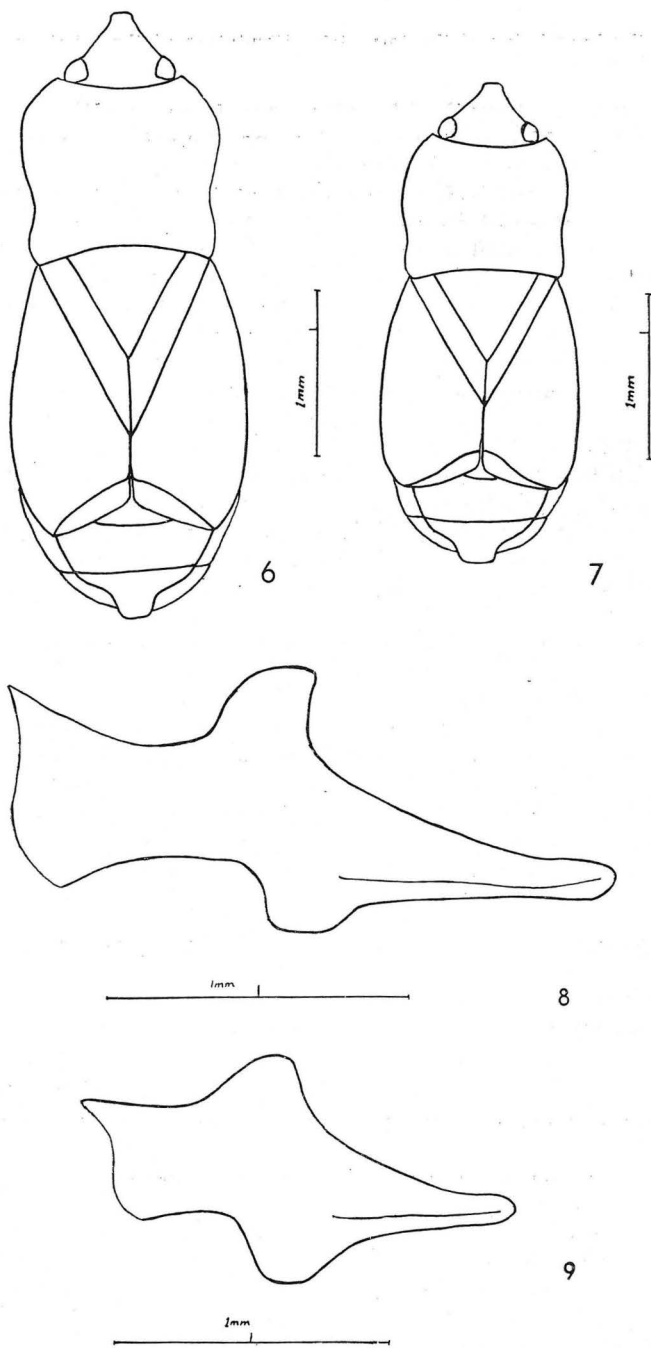


Fig. 6: *Plinthisus* (s. str.) *cautus* Y. Pop., male (holotype). Fig. 7: *Plinthisus* (s. str.) *brevipennis* (Latr.), male. Fig. 8: *Plinthisus* (s. str.) *cautus* J. Pop., male (holotype) — parameres. Fig. 9: *Plinthisus* (s. str.) *brevipennis* (Latr.), male — parameres.

Allotype ♀. Length 3.87 mm.; maximum width 1.5 mm. Head: length 0.66 mm.; width 0.69 mm. Antennae: length of segment I — 0.25 mm.; II — 0.55 mm.; III — 0.45 mm.; IV — 0.50 mm.

Material (collection of the Zoological Institute of the Academy of Sciences in Leningrad examined). Southern Kirghizia: Fergana ridge, Uzbek-Gava, 30. VIII. and 4. IX. 1937, 5 ♂♂ and 3 ♀♀ (Kiritshenko); the valley of the Karasu river, 13. VIII. 1958 (Popov); Kara-Alma, 22. VI. 1957, 6 ♂♂ and 4 ♀♀ (Popov). Tadzhikistan: Turkestan ridge, Karatau, 27. V. 1936 (Lukiyanovitch); Ura-Tyube, 29. VIII. 1944, 1 ♂ (Arnoldi); the valley of the Zeravshan river, Pendjikent and Hurmi, 2. XII. 1943, 2 ♂♂ and 3 ♀♀ (Kiritshenko); Gissar ridge, Iskander-Kul lake, 30. VII. 1947, 3 ♂♂ and 1 ♀ (Kiritshenko); Gissar Valley, 24. II. 1944 and 19. IV. 1947, 4 ♀♀ (Kiritshenko); the valley of the Varzob river, Kondara, 19 ♂♂ and 16 ♀♀ (Kiritshenko, Lopatin, Kulinitich, Zimin); Dushambe district, 28. X. 1943 and 16. IV. 1944, 2 ♂♂ and 4 ♀♀ (Kiritshenko). Pamir: the valley of the Pyandzh river, Horog, 20. VII. 1936, 1 ♂ (Ivanov). Turkmenia: Kopet-Dagh ridge, Firyuza, 21. IX. 1935, 4 ♂♂ and 2 ♀♀ (K. Arnoldi); Kazandjik, 6. IV. 1962, 1 ♀ (Slepyan). Western Iran: Kerman, 26. VIII. 1898, 6 ♂♂ and 14 ♀♀ (Zarudnyi).

In the steppe and mountain steppe formations, the tree-shrub zone. In dry or hardly damp sandy-loamy soil or on the ground. Under *Pistacea vera* and *Abelia corymbosa*.

Plinthius cautus Y. Popov belongs to the subgenus *Plinthisus* Fieb. and is very close to the species *P. brevipennis* (Latr.). This species may easily be distinguished at first glance, by size, form (figs. 6 and 7) and colour of the body. *P. horvathi* Y. Popov is larger and longer (maximum length 4.2 mm.), and the colour of the body, particularly the head, pronotum and scutellum, darker. The main distinguishing features are as follows:

<i>P. cautus</i> Y. Popov	<i>P. brevipennis</i> (Latr.)
Length 3.4—4.2 mm.	Length 2.7—3.5 mm.
There is only one bristle on the base of bucculae.	There are three more or less long bristles.
Eyes glabrous.	Eyes with some very short bristles.
Pronotum vaulted, as long as, or slightly longer than wide.	Pronotum more flat, length inferior to width.
Lateral margins of hemelytra straight as far as curve.	Lateral margins more or less rounded.
The posterior margins of hemelytra very sharply truncated (fig. 6).	The posterior margins not so sharply truncated (fig. 7).
Membrane narrow, forming triangular border.	Membrane narrower, slightly widened towards the posterior angles.
1st posterior tarsal segment not less than 1.4 times as long as the 2nd and 3rd together.	1st posterior tarsal segment not more than 1.3 times as long as the 2nd and 3rd together.
Parameres larger, hypophyses very long (fig. 9).	Parameres smaller, hypophyses not so long (fig. 9).

***Plinthisus* (s. str.) *hungaricus* Horv.**

Fergana ridge: Kara-Alma, 3 ♂♂ and 2 ♀♀, 1800 m.

In the mountain steppe formation, the tree-shrub zone. On the ground, beneath stones in rocky areas.

This species has been recorded in the Mid-Asian part of the USSR only from Turkmenia (Linnavuori, 1953).

Distribution. Southern Europe, Israel, Syria, Turkey, Iran, the South European part of the USSR (the steppe zone), Caucasus, Mid-Asia.

***Plinthisus* (s. str.) *brevipennis* (Latr.)**

Fergana ridge: Kizyl-Unkur, 1 ♂, 1600 m.

The rocky steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from the steppes, foothills and mountains (Oshanin, 1906), Gissar ridge — Kvak (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, North Africa, the European part of the USSR, Caucasus, Mid-Asia.

***Stygnocoris rusticus* (Fall.)**

Fergana ridge: the valley of the Karasu river, 1 ♂ and 2 ♀♀, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been known in the Mid-Asian part of the USSR only from the Fergana ridge — Kara-Alma (Arnoldi, 1949).

Distribution. Europe, Algeria, the European part of the USSR, Mid-Asia.

***Hadrocnemis rufescens* Jak.**

Pskem ridge: Pskem, 1 ♂, 1600 m.

The steppe formation. Under *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR only from the Tashkent district (Kiritshenko, 1922).

Distribution. Mid-Asia.

***Hyalocoris pilicornis* Jak.**

Djalal-Abad, 2 ♀♀, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Bet-Pak-Dala Desert (Asanova, 1962), the steppes and foothills of Southern Kazakhstan, Central Tien-Shan (Oshanin, 1906), Dzijak, Samarkand, Tashkent, Margelan and Leninabad (Oshanin, 1910), Gissar ridge — "Tigrovaya Balka" reserve (Kiritshenko, 1951a), Aivadzh, Tchil-Tchor-Tchashma, Kabadian, Dushambe, Djilikul, Kurgan-Tyube (Kiritshenko, 1952) and Turkmenia — Ariman, Ashkhabad (Oshanin, 1906), Kyuren-Dagh ridge (Pazhitnova and Kiranova, 1956).

Distribution. Algeria, Iran, the South European part of the USSR, Mid-Asia, North-Western China.

***Peritrechus geniculatus* (Hahn)**

Fergana ridge: Kara-Alma, 1600—1800 m. Tchatkal ridge: Sary-Tchilek lake, 2000—2500 m. Pskem ridge: Pskem, 1700 m.

In the steppe and mountain steppe formations, the mixed forest, the subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR only from the Fergana ridge — Kara-Alma (Arnoldi, 1949).

Distribution. Europe, Algeria, Tunis, Turkey, Iran, the European part of the USSR, Mid-Asia.

***Peritrechus gracilicornis* Put.**

Djalal-Abad, 800 m. Fergana ridge: Kara-Alma, 1600—1800 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Djambul, Tashkent and foothills of the Zeravshan and Gissar ridges (Oshanin, 1910), and also from the Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, North Africa, Turkey, Iran, the South European part of the USSR, Caucasus, Mid-Asia.

***Aellopus atratus* (Goeze)**

Fergana ridge: Kara-Alma, 5 ♂♂ and 7 ♀♀, 1600—1900 m.

In the mountain formations, the tree-shrub zone. On the ground and beneath stones, and also under *Prangos pabularia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962), the steppes and foothills of the Kirghizia (Oshanin, 1906), Djambul, Tchimkent, Tashkent, Samarkand (Oshanin, 1910), Alay ridge — Gultcha (Kiritshenko, 1931) and Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, Iran, the European part of the USSR, Caucasus, Mid-Asia.

***Sphragisticus nebulosus* (Fall.)**

Utchterek, 2 ♀♀, 1400 m.

The steppe formation, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan and Southern Kazakhstan (Oshanin, 1910), Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. Palaearctic region, and also Nearctic region (Canada, USA, Mexico).

Trapezonotus (s. str.) arenarius (L.)

Fergana ridge: the valley of the Karasu river, 1 ♂, 1800 m. Tchatkal ridge: Sary-Tchilek lake, 6 ♀♀, 2200—2500 m.

The steppe and mountain steppe formations, the subalpine meadow. In rocky areas.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan (Oshanin, 1906), Fergana ridge — Kara-Alma (Arnoldi, 1949), Zaalay ridge — Bor-Doba (Kiritshenko, 1931) and Gissar ridge — Kondara, Ziddy (Kiritshenko, 1951a).

Distribution. Palaearctic region, and also Nearctic region (Canada, USA).

Aphanus rolandri (L.)

Fergana ridge: Kara-Alma, 1 ♂ and 3 ♀♀, 1600—1800 m. Tchatkal ridge: Arkit 1 ♂ and 4 ♀♀, 1700 m.; Sary-Tchilek lake, 3 ♂♂ and 3 ♀♀, 2000—2500 m.

In the mountain steppe formations, the sparse forest, the subalpine meadow.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Tashkent, Leninabad, Andijan, Kokand, (Oshanin, 1910), Kirghizian ridge — Merke (Linnavuori, 1953), Fergana ridge — Kara-Alma (Arnoldi, 1949), Zeravshan Valley (Oshanin, 1870), Gissar ridge — Kondara, Kvak, Ruidasht, Ziddy (Kiritshenko, 1951a) and Turkmenia — Iolotan, Ashkhabad (Oshanin, 1906).

Distribution. Europe, North Africa, Israel, Syria, Iran, the European part of the USSR, Caucasus, Mid-Asia.

Bleteogonus beckeri (Frey)

Utchterek, 1 ♀ 1400 m. Ugam ridge: Sydjak, 2 ♀, 1200 m.

In the semidesert and steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan and Mid-Asia (Oshanin, 1906).

Distribution. The South-East European part of the USSR, Caucasus, Mid-Asia.

Bleteogonus circumcinctus (Reut.)

Fergana ridge: the valley of the Karasu river, 2 ♂♂ and 7 ♀♀, 1700—1900 m.

In the mountain steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from South-Western Kazakhstan — Kzyl-Orda, Fergana ridge — Kara-Alma (Arnoldi, 1949), Gissar ridge — "Tigrovaya Balka" reserve (Kiritshenko, 1959) and Alay ridge — Utchkurgan, Kizyl-Kurgan (Oshanin, 1910).

Distribution. Mid-Asia.

Rhyparochromus [s. str.] **pini** (L.)

Tchatkal ridge: Sary-Tchilek lake, 2000—2500 m. Ugam ridge: Nanay, 1800—2800 m.

In the mountain steppe formations, the subalpine and alpine meadows. Under bark of *Picea schrenkiana*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan (Oshanin, 1906), Southern Kazakhstan — Djambul (Oshanin, 1910), Koksengir mountain; Central Kazakhstan — Kokshetau mountain (Asanova, 1962) and from the Zeravshan Valley (Oshanin, 1870).

Distribution. Palaearctic region.

Rhyparochromus (**Raglius**) **albomaculatus** (Goeze)

Fergana ridge: Kara-Alma, 1700—1900 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1500—1800 m. Pskem ridge: Pskem, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent and Andijan (Oshanin, 1910), Fergana ridge — Kara-Alma (Arnoldi, 1949) and Gissar ridge — Kondara, Kvak, Gushary, Anzob pass (Kiritshenko, 1951a).

Distribution. Europe, North Africa, Syria, Turkey, Iran, the European part of the USSR, Caucasus, Mid-Asia, Siberia.

Rhyparochromus (**Raglius**) **simplex** (Jak.)

Utchterek, 1 ♀, 1400 m.

The mountain steppe formation.

This species was known in the Mid-Asian part of the USSR from the Alma-Ata district (Oshanin, 1906), from where was described by Jakovlev (Jakovlev, 1883).

Distribution. Mid-Asia.

Rhyparochromus (**Xanthochilus**) **quadratus** (Fabr.)

Djalal-Abad, 800 m.; Bazar-Kurgan, 900 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600 m. Tchatkal ridge: Arkit, 1400—1800 m. Pskem ridge: 1600 m. Ugam ridge: Sijak, 1600—1800 m.; Nanay, 1600 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Djambul (Oshanin, 1910), Koksengir mountain (Asanova, 1962), Fergana ridge — Kara-Alma (Arnoldi, 1949), Turkestan ridge — Guralash reserve (Pazhitnova, 1952), Alay and Gissar

ridges (Oshanin, 1910) and Southern Turkmenia — Kyuren-Dagh mountain (Pazhitnova and Kiranova, 1956).

Distribution. Central and Southern Europe, Algeria, Israel, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia.

Rhyparochromus (Plinthurgus) sogdianus Kir.

Fergana ridge: Karasu lake, 2 ♀♀, 2200 m. Tchatkal ridge: Sary-Tchilek lake, 2 ♂♂ and 3 ♀♀, 2000—2500 m. Pskem ridge: Pskem, 2 ♂♂ and 2 ♀♀, 1800 m.

In the mountain steppe formation, the tree-shrub zone, the sparse forest, the subalpine meadow. Bound to *Picea schrenkiana*, *Juniperus turkestanica*, and *Abelia corymbosa* in rocky areas.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962), Turkestan and Zeravshan ridges (Kiritshenko, 1911), also from the Gissar ridge — Iskander-Dariya, Khozor-Metch (Kiritshenko, 1952).

Distribution. Mid-Asia.

Beosus quadripunctatus (Müll.)

Pskem ridge: Pskem, 2 ♂♂ and 2 ♀♀, 1600 m. Ugam ridge: Sijak, 1 ♂ and 1 ♀, 1600 m.

In the steppe and mountain steppe formations, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Karatau ridge (Southern Kazakhstan), Tchimkent, Khumsan, Tchinaz, Leninabad, Andijan and Osh (Oshanin, 1910), Gissar ridge — Kondara (Kiritshenko, 1951a), Darvaz ridge (Muminov, 1961a), and also from the foothills of the Kirghizian ridge — Tokmak (Linnavuori, 1953).

Distribution. Central and Southern Europe, Israel, Syria, North Iraq, Turkey, Iran, Afghanistan, the South-European part of the USSR, Caucasus, Mid-Asia, Western Siberia.

Beosus maritimus (Scop.)

Ugam ridge: Sijak, 2 ♀♀, 1200 m.

The steppe formations, along rivers.

This species has been recorded in the Mid-Asian part of the USSR only from Turkmenia (Oshanin, 1906).

Distribution. Central and Southern Europe, North Africa, Israel, Northern Iraq, Turkey, Iran, the South-European part of the USSR, Caucasus, Mid-Asia.

Ischnopeza hirticornis (H.-S.)

Fergana ridge: the valley of Karasu river, 2 ♀♀, 1700 m. Tchatkal ridge: Arkit, 1 ♂, 1600 m.

In the steppe and mountain steppe formations. In rocky areas.

This species has been recorded in the Mid-Asian part of the USSR

from Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a) and Turkmenia — Krasnovodsk (Oshanin, 1910).

Distribution. Southern Europe, Algeria, Israel, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia.

***Emblethis nigricans* Y. Popov**

Body large, oval (fig. 10); 2.3—2.4 times as long as wide. Dark brown; hemelytra yellow-brown, with black, very dense punctation, the individual pits of which are irregular in outline; legs black or blackish-brown, tarsi usually light yellow; membrane white. Punctuation rather coarse, black and clearly visible, especially dense on the pronotum and scutellum.

Head triangular, strongly vaulted above, slightly laterally elongate; black, except for a small yellowish spot on the occiput; with a very short, light, adpressed pubescence; short bristles on the frons, near the inner margins of eyes, at the base of the antennae and tylus; surface of the head rather densely and regularly punctated. Eyes globular, sessile. Tylus narrow and very short; jugae extending two-thirds of the length of the tylus, sharply narrow terminally. Antennae long, 2.5 times as long as the width of the head together with the eyes; dark brown; the first antennal segment short and thick, 3.3 times as long as wide, with short sparse hairs; 2nd and 3rd segments linear, with the hairs more dense and thin; 4th segment fusiform, with short silvery adpressed pubescence; relative lengths of the respective antennal segments I:II:III:IV = 35:91:57:70.

Pronotum almost square, strongly narrowed in the anterior direction, 1.1—1.3 times as wide as long, at the base 1.8 times as wide as at the anterior margin; margins of the pronotum narrowly flattened throughout their length; surface of the pronotum strongly vaulted in the

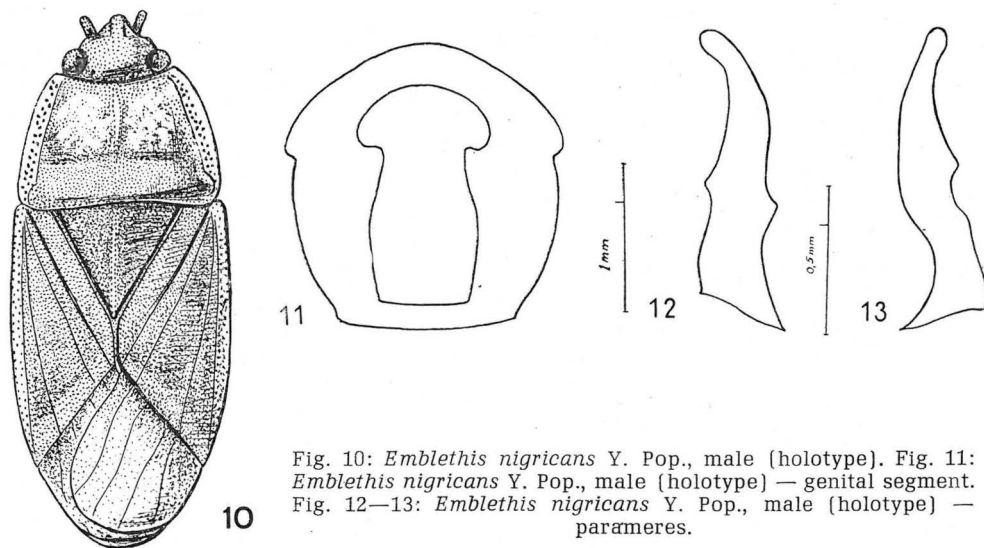


Fig. 10: *Emblethis nigricans* Y. Pop., male (holotype). Fig. 11: *Emblethis nigricans* Y. Pop., male (holotype) — genital segment. Fig. 12—13: *Emblethis nigricans* Y. Pop., male (holotype) — parameres.

anterior two thirds, the basal third flat; the anterior half, sometimes the whole pronotum, black, or with black fused spots, except for the lateral margins, which are light-coloured; punctuation of the anterior margin and the posterior third of the pronotum regular, deep and very dense, its vaulted parts almost smooth and more sparsely punctated; the flattened lateral margins sparsely and rather diffusely punctated, making two more or less distinct rows; edges with sparse and very short, black bristles throughout the margin. Scutellum with more or less black spots; surface rather densely and regularly punctate. Hemelytra extending to the end of abdomen; yellow-brown or light brown; punctuation dense and rather diffuse, more sparse on the external margin, so that the emboliar margins are light yellow. Membrane wholly white, without spots or pattern.

Lower side of body pitch-black, or venter dark brown; with small semi-adpressed hairs, more dense at the base of coxae; punctuation weak, hardly visible, black coloured. Legs dark brown, tibiae often light, especially below; tarsi always light; anterior tibiae with some short black spines. The first tarsal segment of the posterior legs 2.1 times as long as the 2nd and 3rd segments together.

Genital segment (fig. 11) very small, 1.1 times as wide as long, black in colour; genital opening not wide, the anterior part strongly elongate transversely (fig. 11), twice as wide as long; the posterior part strongly narrowed 1.5 times as long as wide. Parameres (fig. 12 and 13) more or less straight, but with the end hook-shaped.

Holotype ♂. Length 7 mm., width 2.95 mm. Head: length 1.1 mm.; width 1.4 mm. Antennae: length of segment I — 0.5 mm.; II — 1.25 mm.; III — 0.8 mm.; IV — 1.0 mm. Pronotum: length 1.9 mm.; width 2.8 mm.

Allotype ♀. Length 7.3 mm.; width 3.0 mm. Head: length 1.0 mm.; width 1.45 mm. Antennae: length of segment I — 0.5 mm.; II — 1.25 mm.; III — 0.8 mm.; IV — 1.0 mm. Pronotum: length 1.6 mm.; width 2.75 mm.

Material. South Kirghizia: Fergana ridge, the valley of the Karasu river, 23. VIII. 1958, 2 ♂♂ and 2 ♀♀ (Popov).

The mountain steppe formation, in rocky areas.

Emblethis nigricans Y. Popov belongs to the "*verbasci*" group. This species is more or less close to *E. sinuatus* Ed. Wagner, but it differs in being slenderer and larger (7.0—7.5 mm), the body of the first tarsal segment being shorted. (1st segment is only 2 times as long as 2nd and 3rd segments together); and with very dense dark punctuation, especially on the pronotum. Membrane white, as in *E. angustus* Mont.

***Emblethis verbasci* (Fabr.)**

Djalal-Abad, 1 ♂ and 1 ♀, 800 m. Pskem ridge: Pskem, 1 ♂ and 2 ♀♀, 1600 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan, Tashkent Alatau,

Fergana Valley, Golodnaya Desert (Oshanin, 1910), and also from the Gissar ridge — Kondara, Ruidasht (Kiritshenko, 1951a), Darvaz ridge (Muminov, 1961a), Pamir (Oshanin, 1910) and Southern Turkmenia: Kyuren-Dagh ridge (Pazhitnova and Kiranova, 1956).

Distribution. Europe, North Africa, Israel, Syria, Turkey, Afghanistan, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk), Mongolia, China (Tibet).

***Emblethis ciliatus* Horv.**

Fergana ridge: Karasu lake, 2 ♀♀, 2000 m. Utchterek, 1 ♂, 1400 m. Pskem ridge: Pskem, 1 ♂ and 2 ♀♀, 1700 m.

In the steppe and mountain steppe formations. Under *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Central Tien-Shan (Oshanin, 1906), Fergana Valley (Oshanin, 1910), Alay ridge — Kzyl-Yar (Kiritshenko, 1931) and Turkmenia — Merv (Linna-vuori, 1953).

Distribution. Central and Southern Europe, North Africa, Israel, Iraq, Turkey, Afghanistan, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia, Siberia.

***Emblethis angustus* Mont.**

Tchatkal ridge: Parkent reserve, 1 ♂ and 2 ♀♀, 1400 m.

In the rocky steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from South-Western Kazakhstan — Kzyl-Orda, Djulek; Gissar ridge — Kondara (Kiritshenko, 1951a), "Tigrovaya Balka" reserve (Kiritshenko, 1959) and Darvaz ridge (Muminov, 1961a).

Distribution. Southern Europe, North Africa, Mid-Asia, Mongolia.

***Emblethis osmanus* Seid.**

Tchatkal ridge: Parkent reserve, 1 ♂, 1200 m.

The rocky steppe formation.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Turkey, Mid-Asia.

***Emblethis karamanus* Seid.**

Fergana ridge: Karasu lake, 1 ♂ and 1 ♀, 1900 m.

The mountain steppe formation.

This species is recorded in the Mid-Asian part of the USSR for the first time.

Distribution. Turkey, Mid-Asia.

Emblethis griseus (Wolff)

Fergana ridge: Kara-Alma, 2 ♂♂ and 2 ♀♀, 1600 m. Tchatkal ridge: Arkit, 3 ♀♀, 1400 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Bet-Pak-Dala Desert (Asanova, 1962), Central Tien-Shan and the Fergana Valley — Margelan (Oshanin, 1910).

Distribution. Palaearctic region, and also Nearctic region (USA).

Emblethis denticollis Horv.

Djalal-Abad, 2 ♂♂ and 1 ♀, 800 m. Fergana ridge: Kara-Alma, 2 ♂♂ and 4 ♀♀, 1600 m.

In the semidesert and steppe formations, along rivers. Bound to *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan — Issyk-Kul and Son-Kul lakes; steppes and foothills of Western Tien-Shan (Oshanin, 1910) and Gissar ridge — Kvak, Ruidasht, Gushary (Kiritshenko, 1951a) and "Tigrovaya Balka" reserve (Kiritshenko, 1959).

Distribution. Central and Southern Europe, Syria, the European part of the USSR, Caucasus, Mid-Asia.

Lethaeus picipes H.-S.

Tchatkal ridge: Parkent reserve, 1 ♂ and 3 ♀♀, 1400 m. Pskem ridge: Pskem, 1 ♂ and 1 ♀, 1800 m.

In the steppe and mountain rocky steppe formations. On the ground and beneath stones, and also under *Abelia corymbosa*.

This species has been recorded in the Mid-Asian part of the USSR only from Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Israel, Syria, Turkey, Afghanistan, Transcaucasus, Mid-Asia.

Drymus (s. str.) **sylvaticus** (Fabr.)

Fergana ridge: Kara-Alma, 1 ♀, 1700 m.

The mountain steppe formation in the forest zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan (Oshanin, 1906), Fergana ridge — Kara-Alma (Arnoldi, 1949) and Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Europe, Turkey, Algeria, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

Scolopostethus affinis (Schill.)

Fergana ridge: the valley of the Karasu river, 1 ♂ and 1 ♀, 1600 m.

The mountain steppe formation and the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Fergana ridge — Kara-Alma (Arnoldi, 1949) and Ashkabad (Oshanin, 1906).

Distribution. Palaearctic region.

***Scolopostethus pilosus* Reut.**

Fergana ridge: the valley of the Karasu river, 1 ♀, 1600 m.

The mountain steppe formation, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Southern Kazakhstan, Fergana Valley — Lenina-bad, Osh (Oshanin, 1910) and Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, the European part of the USSR, Caucasus, Mid-Asia, Siberia.

***Scolopostethus lethieryi* Jak.**

Fergana ridge: Kara-Alma, 1 ♂, 1700 m.

The tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Karatau ridge — Dmitrovka (Southern Kazakhstan) and Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Hungary, the South-European part of the USSR, Caucasus, Mid-Asia.

BERYTIDAE

BERYTINAE

***Neides tipularius* (L.)**

Fergana ridge: Kara-Alma, 1 ♀, 1700 m. Tchatkal ridge: Sary-Tchilek lake, 3 ♂♂ and 5 ♀♀, 2000 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the subalpine meadow. On *Ziziphora bungeana*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan, Eastern Bukhara and Tashkent (Oshanin, 1910), and also from the Tchatkal ridge — Sary-Tchilek lake (Popov, 1960), Turkestan ridge — Guralash reserve (Pazhitnova, 1952), Gissar ridge — Kondara, Kvak, Ruidasht, Gushary, Ziddy (Kiritshenko, 1951a) and Darvaz ridge (Muminov, 1961a).

Distribution. Europe, the European part of the USSR, Caucasus, Mid-Asia.

***Berytinus clavipes* (Fabr.)**

Fergana ridge: Kara-Alma, 1600—1800 m. Pskem ridge: Pskem, 1700 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR

from Central Kazakhstan — Kokshetau mountain (Asanova, 1962) and Central Tien-Shan — Uzun-Agatch, Lepsinsk (Oshanin, 1910).

Distribution. Central and Southern Europe, Algeria, Tunis, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

Berytinus montivagus Mey

Tchatkal ridge: Parkent reserve, 4 ♀♀, 1400 m.

The steppe formation. Bound to *Atraphaxis pyrifolia*.

This species has been recorded in the Mid-Asian part of the USSR from the Southern Kazakhstan — Djambul, Bish-Tash (Oshanin, 1910), Tchimkent; Central Tien-Shan — Frunze (Linnavuori, 1953), and also from Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Europe, Algeria, Turkey, the European part of the USSR, Caucasus, Mid-Asia.

METACANTHINAE

Gampsocoris punctipes (Germ.)

Ugam ridge: Sijak, 1 ♂ and 1 ♀, 1700 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from the steppes and foothills (Oshanin, 1891), and also from Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Europe, Algeria, Turkey, the European part of the USSR, Caucasus, Mid-Asia.

ARADIDAE

Aradus lugubris Fall.

Fergana ridge: Kara-Unkur, 1 ♀, 2200 m.

The sparse fir forest. On *Picea schrenkiana*.

This species has been recorded in the Mid-Asian part of the USSR only from Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962).

Distribution. Palaearctic region, and also from Nearctic region (USA).

COREIDAE

COREINAE

Gonocerus patellatus Kir.

Tchatkal ridge: Arkit, 1500—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Scaligeria* sp., *Bunium chaerophylloides*, *Epilobium hirsutum*, *Spiraea hypericifolia*, *Lonicera karelini*, and also on *Frangula* sp. (Kiritshenko, 1951a).

This species has been recorded in the Mid-Asian part of the Southern Kazakhstan — Karatau ridge (Kiritshenko, 1916), Tchatkal ridge — Arkit (Popov, 1960), Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a), Darvaz ridge (Muminov, 1961a) and Kopet-Dagh ridge (Kiritshenko, 1916).

Distribution. Mid-Asia.

Coreus marginatus (L.)

Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1900 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Rumex crispus*, and also on *Polygonum bucharicum* (Muminov, 1961 a).

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Palaearctic region.

Syromastus rhombeus f. quadratus (Fabr.)

Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Spiraea*, *Bunium*, *Artemisia*, *Scaligeria*, and also on *Medicago* (Pazhitnova, 1952).

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Central and Southern Europe, North Africa, Syria, Turkey, Iran, the European part of the USSR (steppe and forest-steppe zones), Caucasus, Mid-Asia.

Haploprocta pustulifera Stål

Tchatkal ridge: Arkit, 1 ♀, 1500 m.

In the semidesert and steppe formation. On *Atraphaxis* (Kiritshenko, 1951a).

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain and Bet-Pak-Dala Desert (Asanova, 1962); Central Tien-Shan — the district of the Issyk-Kul lake (Kiritshenko, 1916; Panfilov, 1962); the semidesert and desert zones, and also steppe and foothills of Southern Kazakhstan, Uzbekistan, Tajikistan and Turkmenia (Kiritshenko, 1916).

Distribution. Mid-Asia, Mongolia, North-Western China.

Enoplops eversmanni Jak.

Fergana ridge: Kara-Alma, 1600—1800 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone. On *Rumex crispus*.

This species is widely distributed through the mountains and foothills of Tien-Shan and Pamir-Alay.

Distribution. Mid-Asia.

Centrocoris volxemi (Put.)

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 900 m.; Kok-Yangak, 900—1200 m. Fargana ridge: Kara-Alma, 1600 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1200—1600 m.

In the semidesert and steppe formations. On *Atraphaxis pyrifolia*.

This species is widely distributed through the whole of the lower part and foothills of the Mid-Asian part of the USSR.

Distribution. Turkey, Iran, Transcaucasus, Mid-Asia.

Spatocera lobata (H.-S.)

Fergana ridge: Kara-Alma, 1600—1800 m.

In the steppe and mountain steppe formations. On *Rumex crispus*.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan (Asanova, 1962), Central Tien-Shan — Przhevalsk; Susamyr ridge; Tashkent, Golodnaya Desert (Kiritshenko, 1916).

Distribution. Southern Europe, North Africa, Turkey, Iran, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

STENOCEPHALINAE

Dicranocephalus ferghanensis (Horv.)

Fergana ridge: Atchi, 1 ♀, 1500 m.; Kara-Alma, 1 ♂, 1600 m. Pskem ridge: Pskem, 1 ♀ and 1 larva, 1600 m. Ugam ridge: Syjak, 1 ♂, 1500 m.

In the steppe and mountain steppe formations, the tree-shrub zone. On *Ziziphora* sp. and *Perovskia scrophulariaefolia* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Kendyktas mountain (Linnavuori, 1953), the steppes and foothills of Tien-Shan (Oshanin, 1906), Fergana ridge — Kara-Alma (Arnoldi, 1949), Turkestan ridge — Guralash reserve (Pazhitnova, 1952), Gissar ridge — Kondara, Kvak, Ruidasht (Kiritshenko, 1951a), Darvaz ridge (Muminov, 1961a) and Turkmenia (Oshanin, 1906).

Distribution. Iran, Mid-Asia.

PSEUDOPHLOEINAE

Bathysolen nubilis (Fall.)

Fergana ridge: Kara-Alma, 1600—1800 m.

In the mountain steppe formations, the tree-shrub zone, the mixed forest. On *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan — Uzun-Agatch, Przhevalsk (Oshanin, 1910), Tashkent, Fergana Valley — Andijan (Oshanin, 1906), Fergana ridge — Kara-Alma (Arnoldi, 1949), Gissar ridge — Kondara (Kiritshenko, 1951a), Iskander-Dariya river, Verenkul lake, Sarytag, Khozor-Metch, Dushambe, Gazni, Va-

chan (Kiritshenko, 1952) and Southern Turkmenia — Kyuren-Dagh ridge (Pazhitnova and Kiranova, 1956).

Distribution. Europe, North Africa, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia.

***Nemocoris falleni* F. Sahl.**

Fergana ridge: Kara-Alma, 1 ♂, 1800 m.

The tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Alma-Ata (Oshanin, 1910) and Fergana ridge — Kara-Alma (Arnoldi, 1949).

Distribution. Europe, the European part of the USSR, Mid-Asia.

***Ceraleptus obtusus* (Brullé)**

Fergana ridge: Kara-Alma, 3 ♂♂ and 9 ♀♀, 1600—1800 m.

The tree-shrub zone and the mixed forest.

This species has been recorded in the Mid-Asian part of the USSR from the Fergana ridge — Kara-Alma (Arnoldi, 1949), the valley of the Zeravshan river (Kiritshenko, 1952), Gissar ridge (Kiritshenko, 1951a) and Turkmenia (Oshanin, 1906).

Distribution. Southern Europe, North Africa, Syria, Iran, the South European part of the USSR, Caucasus, Mid-Asia.

***Coriomeris scabricornis* (Panz.)**

Djalal-Abad, 1 ♂ and 2 ♀♀, 800 m.; Kok-Yangak, 1 ♂ and 1 ♀, 900 m. Fergana ridge: Kara-Alma, 2 ♂♂, 1700 m. Tchatkal ridge: Arkit, 2 ♂♂ and 2 ♀♀, 1600 m.

In the semidesert and steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Achillea filipendulina*.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain; Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Central Tien-Shan (Oshanin, 1906) and Turkestan ridge — Guralash reserve (Pazhitnova, 1952).

Distribution. Palaearctic region.

***Coriomeris vitticollis* Reut.**

Djalal-Abad, 2 ♂♂ and 4 ♀♀, 800 m. Tchatkal ridge: Arkit, 1 ♂ and 1 ♀, 1500 m.

In the semidesert and steppe formations, along rivers. On *Achillea* and *Heracleum* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul (Oshanin, 1906), Frunze district — Djilaryk; Karatau ridge; Samarkand (Oshanin, 1910), Fergana ridge — Kara-Alma (Arnoldi, 1949), Turkestan ridge — Guralash reserve (Pazhitnova, 1952), Gissar ridge — the valley of the Varzob river, Kvak (Ki-

ritschenko, 1951a) and Kyuren-Dagh (Pazhitnova and Kiranova, 1956).

Distribution. Southern Europe, Egypt, Iraq, Syria, Turkey, Iran, the South-European part of the USSR, Caucasus, Mid-Asia.

***Coriomeris hirticornis* (Fabr.)**

Djalal-Abad, 2 ♂♂ and 1 ♀, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Frunze and Alma-Ata (Oshanin, 1910).

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia.

***Coriomeris pallidus* Reut.**

Ugam ridge: Syjak, 1 ♀, 1400 m.

The steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Kendyktas ridge (Oshanin, 1906), Fergan Valley — Leninabad, Margelan (Oshanin, 1910), Fergan ridge — Kara-Alma (Arnoldi, 1949), Gissar ridge — Kondara (Kiritshenko, 1951a), Turkmenia (Oshanin, 1906).

Distribution. Turkey, Mid-Asia.

ALYDINAE

***Alydus calcaratus* (L.)**

Fergana ridge: the valley of the Karasu river, 2 larv., 2000 m. Ugam ridge: Syjak, 1 ♀, 1700 m.

In the mountain steppe formations, the tree-shrub zone, the mixed forest.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan, Tashkent Alatau (Oshanin, 1906), Turkestan ridge — Guralash reserve (Pazhitnova, 1952) and Alay ridge (Oshanin, 1910).

Distribution. Palaearctic region, and also Nearctic region (Alaska, Canada, USA).

***Camptopus lateralis* (Germ.)**

Djalal-Abad, 800 m.; Suzak, 800 m.; Bara-Kurgam, 900 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Alma-Alma, 1600—1800 m.; Kizyl-Unkur, 1900 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Sary-Tchilek lake, 200 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge Syjak, 1600—1900 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Nepeta maria*, *Astragalus* sp., *Spiraea hypericifolia*, and also on *Medicago* (Pazhitnova, 1952).

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Iraq, Turkey, Iran, Afghanistan, the South-European part of the USSR, Caucasus, Mid-Asia, Western India, China.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

RHOPALINAE

Corizomorpha anowskyi Jak.

Djalal-Abad, 1 ♀, 800 m.

The subdesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Golodnaya Desert and Ashkhabad (Oshanin, 1906).

Distribution. Transcaucasus, Mid-Asia.

Corizus hyoscyami [L.]*

Djalal-Abad, 800 m.; Kok-Yangak, 800—1200 m. Fargana ridge: Kara-Alma 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.; Karasu lake, 2000 m.; the valley of the Karasu river, 1600—1900 m. Utchteerek, 1400 m. Tchatkal ridge: Arkit, 1500—1800 m.; Sary-Tchilek lake, 2000—2500 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers. On *Tanacetum pseudoachillea* and *Achillea filipendulina*.

This species is widely distributed through the whole of the Mid-Asia part of the USSR.

Distribution. Palaearctic region, except North Africa.

Corizus limbatus limbatus (Reut.)

Tchatkal ridge: Parkent reserve, 2 ♀♀, 1400 m. Ugam ridge: Syjak, 1 ♂ and 1 ♀, 1600 m.

In the steppe formation, the tree-shrub zone.

This species is widely distributed through the whole of Tien-Shan and Pamir-Alay, and the Southern part of Mid-Asia.

Distribution. Turkey, Iran, Afghanistan, Transcaucasus, Mid-Asia, North-Western India.

Corizus tetraspilus Horv.

Pskem ridge: Pskem, 1 ♂, 1700 m. Ugam ridge: Syjak, 1 ♂ and 1 ♀, 1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

*) During my determination and detailing of the species of the genus *Corizus* Fall. I had the opportunity to use I. M. Kerzner's manuscript "On the systematics and inter-specific variability of the genus *Corizus* Fall. (Heteroptera, Coreidae); the author gave me one of his copies.

This species has been recorded in the Mid-Asian part of the USSR from the Fergana Valley, Tashkent Alatau, Tien-Shan.

Distribution. Mid-Asia, Siberia, Far East, Mongolia, China, North Korea.

Liorhyssus hyalinus (Fabr.)

Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1500—1800 m.; Parkent reserve, 1400—1600 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. It attacks cotton and alfalfa.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Cosmopolitan.

Rhopalus subrufus (Gmel.)

Fergana ridge: Kara-Alma, 2 ♂♂ and 2 ♀♀, 1700 m. Tchatkal ridge: Arkit, 2 ♀♀, 1600 m. Ugam ridge: Syjak, 1 ♂ and 4 ♀♀, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Achillea filipendulina*.

This species is known in the Mid-Asian part of the USSR only from Southern Turkmenia — Kyuren-Dagh mountain (Pazhitnova and Kiranova, 1956).

Distribution. Cosmopolitan.

Rhopalus parumpunctatus (Schill.)

Fergana ridge: Kizyl-Unkur, 2 ♂♂ and 2 ♀♀, 1700 m. Tchatkal ridge: Arkit, 5 ♂♂ and 7 ♀♀, 1600—1900 m. Pskem ridge: Pskem, 2 ♀♀, 1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On Labiatae — *Nepeta pannonica*, *Hissopus seravschanicus*.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan — Przhevalsk, Kizylsu (Oshanin, 1906), Tchatkal ridge — Arkit (Popov, 1960), Fergana Valley — Osh, Alay ridge — Bopak (Kiritshenko, 1931), Turkestan ridge — Guralash reserve (Pazhitnova, 1952), Gissar ridge — Kondara, Kvak, Ruidasht (Kiritshenko, 1951a), Darvaz ridge (Muminov, 1961a) and Southern Turkmenia — Kyuren-Dagh mountain (Pazhitnova and Kiranova, 1956).

Distribution. Palaearctic region.

Rhopalus parumpunctatus f. lepidus (Fieb.)

Fergana ridge: Kizyl-Unkur, 2 ♀♀, 1600 m.; Karasu lake, 1 ♂, 2000 m. Tchatkal ridge: Arkit, 1 ♂ and 1 ♀, 1700 m.

In the steppe and mountain steppe formations, along rivers. On *Tanacetum pseudoachillea*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Kashgaria (Oshanin, 1906), Tashkent, Andijan, Leninabad, Humsan and Tadjikistan — Karategin ridge (Oshanin, 1910), and also from the Gissar ridge — Kondara, Kvak, Ruidasht (Kiritshenko, 1951a).

Distribution. Southern Europe, North Africa, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia.

***Rhopalus conspersus* (Fieb.)**

Fergan ridge: Kara-Alma, 1600—1800 m. Tchatkal ridge: Arkit, 1600—1800 m.; Sary-Tchilek lake, 2000—2200 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Nanay, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Ugam ridge — Humsan and Fergana Valley — Margellan (Oshanin, 1910).

Distribution. Central and Southern Europe, Turkey, Iran, the European part of the USSR, Caucasus, Mid-Asia.

***Brachycarenum tigrinus* (Schill.)**

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 900 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1600—1800 m.; Parkent reserve, 1400—1600 m. Pskem ridge: Pskem, 1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Artemisia* and some Labiatae.

Distribution. Palaearctic region.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

***Stictopleurus abutilon* (Rossi)**

Djalal-Abad, 800 m.; Bazar-Kurgan, 900 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1600—1800 m.; Sary-Tchilek, 2000—2200 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers. On *Tanacetum pseudoachillea*.

This species has been recorded in the Mid-Asia part of the USSR from Central and Southern Kazakhstan (Asanova, 1962), Central Tien-

Shan [Oshanin, 1906], Djulek, Tashkent [Oshanin, 1910], Tchatkal ridge [Popov, 1960], Alay ridge — Gultcha [Kiritshenko, 1931] and Gissar ridge — Kondara, Kvak, Ruidasht, Gushary [Kiritshenko, 1951a].

Distribution. Europe, North Africa, Israel, Syria, Irak, Turkey, Iran, the European part of the USSR, Caucasus, Mid-Asia.

***Stictopleurus crassicornis* (L.)**

Fergana ridge: the valley of the Karasu river, 2 ♀♀, 1700 m.

In the mountain steppe formation and the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan [Asanova, 1962], Central Tien-Shan and West Tien-Shan, Alay ridge and Gissar ridge [Oshanin, 1910].

Distribution. Palaearctic region, and also Nearctic region (Canada, USA).

***Stictopleurus unicolor* Jak.**

Pskem ridge: Pskem, 1 ♂ and 1 ♀. Ugam ridge: Syjak, 1 ♀, 1600 m.

In the steppe and mountain steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan [Asanova, 1962], Fergana Valley — Leninabad [Oshanin, 1910] and Gissar ridge — Kondara [Kiritshenko, 1951a].

Distribution. South-Eastern part of the USSR, Mid-Asia, Siberia (Irkutsk).

***Maccevethus lineola* (Fabr.)**

Fergana ridge: Kara-Alma, 1600—1800 m. Tchatkal ridge: Arkit, 1600—1800 m.; Parkent reserve, 1400 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Inula grandis*, *Verbascum* sp., *Achillea filipendulina*.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, Iran, the South European part of the USSR, Caucasus, Mid-Asia. This species is widely distributed through the whole of the Mid-Asian part of the USSR.

***Maccevethus persicus* Jak.**

Djalal-Abad, 2 ♂♂ and 1 ♀, 800 m.

The semidesert and steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain [Asanova, 1962], Karatau ridge — [Oshanin, 1906]; Golodnaya Desert [Jachontov, 1962] and Gissar ridge — Kondara, Kvak, Ruidasht [Kiritshenko, 1951 a].

Distribution. Iran, Mid-Asia.

Agraphopus lethierryi Stål

Djalal-Abad, 1 ♂ and 1 ♀, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Southern Europe, North Africa, Sudan, Israel, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia, India.

Chorosoma schillingi (Schill.)

Djalal-Abad, 3 ♂♂ and 2 ♀♀, 800 m. Ugam ridge: Syjak, 2 ♂♂ and 1 ♀, 1600 m.

In the semidesert and steppe formations.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia.

PENTATOMIDAE

SCUTELLERINAE

Odontoscelis fuliginosa (L.)

Djalal-Abad, 2 ♂♂ and 2 ♀♀, 800 m. Fergana ridge: the valley of the Karasu river, 3 ♂♂ and 4 ♀♀, 1700 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone. Associated with *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan (Asanova, 1962), Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962), Pamir — Sary-Kol, Alay ridge — Kzyl-Yar (Kiritshenko, 1931), Gissar ridge — Kondara, Anzob pass (Kiritshenko, 1951a) and "Tigrovaya Balka" reserve (Kiritshenko, 1959).

Distribution. Palaearctic region.

Odontoscelis dorsalis (Fabr.)

Pskem ridge: Pskem, 2 ♀♀, 1800 m.

In the mountain formation and the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from the steppes and foothills (Oshanin, 1891) and Gissar ridge (Kiritshenko, 1951a).

Distribution. North Africa, Israel, Turkey, Transcaucasus, Mid-Asia.

Irochrotus lanatus (Pall.)

Fergana ridge: the valley of the Karasu river, 1 ♂, 1600 m.

The steppe formation. On *Agropyron trichophorum*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Central Tien-Shan (Oshanin, 1910), Turkestan ridge — Guralash reserve (Pazhitnova, 1952) and Kopet-Dagh ridge (Linnavuori, 1953).

Distribution. Central and Southern Europe, Algeria, Israel, Turkey, Iran, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

***Odontotarsus purpureolineatus* (Rossi)**

Djalal-Abad, 800 m.; Bazar-Kurgan, 900—1200 m.; Oktyabrskoje, 900 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.; Karasu lake, 2000 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1600—1900 m.; Sary-Tchilek lake, 2000—2200 m.; Parkent reserve, 1400—1600 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Nepeta maria* and *Sanguisorba polygama*.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, Iran, the European part of the USSR, Caucasus, Mid-Asia.

***Odontotarsus furvus* Kir.**

Djalal-Abad, 1 ♂ and 3 ♀♀, 800 m.; Bazar-Kurgan, 3 ♀♀, 900 m. Fergana ridge: Kara-Alma, 2 ♂♂ and 5 ♀♀, 1600—1800 m. Tchatkal ridge: Arkit, 3 ♂♂ and 2 ♀♀, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Nepeta maria*.

This species has been recorded in the Mid-Asian part of the USSR from the valley of the Pskem river, Aktash (Samarkand district), Andijan district, Alay ridge — Gultcha (Kiritshenko, 1926) and Fergana ridge — Kara-Alma (Arnoldi, 1949).

Distribution. Mid-Asia.

***Odontotarsus impictus* Jak.**

Djalal-Abad, 800 m.; Kok-Yangak, 900 m. Fergana ridge: Kara-Alma, 1600 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone. On Compositae (Kiritshenko, 1959).

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Djambul, Beklarbek; Tashkent Alatau — Pskem, Husman, Fergana Valley — Leninabad, the valley of the Zeravshan river (Oshanin, 1910), Tashkent, Margellan (Oshanin, 1906), foothills of Tashkent Alatau — Zarkent, Humsan, Saysyk; Turkestan ridge — Gu-

ralash reserve [Pazhitnova, 1952], Gissar ridge — Kondara, Kvak [Kiritshenko, 1951a] and Tash-Kurgan [Oshanin, 1910].

Distribution. Turkey, Iran, Transcaucasus, Mid-Asia.

***Odontotarsus angustatus* Jak.**

Djalal-Abad, 1 ♂ and 2 ♀♀, 800 m.; Kok-Yangak, 2 ♀♀, 900 m. Fergana ridge: Kara-Alka, 1 ♂ and 1 ♀, 1600 m.

In the subdesert and steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Djambul, Djizak, Samarkand, Leninabad, Margellan, Osh, Tashkent, Sary-Djuy [Oshanin, 1910], Gissar ridge — Kondara, Kvak [Kiritshenko, 1951a] and Turkmenia — Ashkhabad [Oshanin, 1906], Wyuren-Dagh mountain [Pazhitnova and Kiranova, 1956].

Distribution. Iraq, Iran, Afghanistan, Mid-Asia.

***Melanodema carbonarium* Jak.**

Djalal-Abad, 2 ♀♀, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR only from Tashkent [Oshanin, 1906], Thinaz and Bukhara [Oshanin, 1910].

Distribution. Iran, Mid-Asia.

***Phimodera nodicollis* (Burm.)**

Utchterek, 1 ♀, 1400 m.

The steppe formation.

This species has been recorded in the Mid-Asian part of the USSR only from Southern Kazakhstan [Oshanin, 1910].

Distribution. European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia, Siberia.

***Psacasta* (s. str.) *exanthematica* (Scop.)**

Djalal-Abad, 1 ♂, 900 m. Fergana ridge: Kara-Alma, 1 ♂ and 2 ♀♀, 1600—1800 m. Ugam ridge: Syjak, 2 ♀♀, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone. On *Prangos pabularia*.

This species is known in the Mid-Asian part of the USSR from the steppes and foothills [Oshanin, 1891].

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, Iran, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

***Eurygaster integriceps* Put.**

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 900—1200 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Atchi, 1500 m.; Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1900—2200 m.; Karasu

lake, 2000—2500 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1400—1900 m.; Sary-Tchilek lake, 2000—2500 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, Iran, Afghanistan, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

Eurygaster maura (L.)

Djalal-Abad, 2 ♀♀, 800 m. Tchatkal ridge: Arkit, 3 ♂♂ and 7 ♀♀, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Southern Kazakhstan — Djambul, Tchimkent, Tashkent Alatau, Alay ridge (Oshanin, 1910).

Distribution. Palaearctic region.

Eurygaster sodalis Horv.

Tchatkal ridge: Arkit, 1 ♂, 1600 m.

Along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Kazalinsk (Oshanin, 1910) and Tashkent (Oshanin, 1906).

Distribution. Iran, Mid-Asia.

PODOPINAE

Leprosoma tuberculatum Jak.

Djalal-Abad, 1 ♀, 800 m.

The semidesert and steppe formations. On *Atraphaxis pyrifolia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Golodnaya Desert, Fergana Valley (Oshanin, 1910), the foothills of the Karatau ridge (Oshanin, 1906) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Turkey, the South European part of the USSR, Mid-Asia.

Ventocoris (s. str.) **advenum** (Horv.)

Ugam ridge: Syjak, 4 ♂♂ and 3 ♀♀, 1200 m.

In the semidesert and steppe formations. On Ranunculaceae.

This species has been recorded in the Mid-Asian part of the USSR (in the material of Zoological Institute of the Academy of Sciences, Lenin-

grad] from the following points: Ostashkino on Bolshaya Almaatinka river — Zailiyski ridge (Shnitkov, 1928); Akyrtope — the foothill of the Kirghizian ridge (Veltistchev, 1931); Karasay — Karatau ridge (Lukiyanovitch, 1936); Saryagatch — N. from Tashkent (Prynada, 1925); Kuropatkino — between Djizak and Samarkand (Pavlova, 1931); NW from Kattakurgan (Zimin, 1928); Tadzhikistan — Tambulak-Mazor (Kiritshenko, 1943); Botash (Silin, 1930); Kulyab (Regel, 1883 and V. Popov, 1933), Gissar ridge (Gussakovski, 1935) and Dushambe (V. Popov, 1933).

Distribution. Mid-Asia.

Subgen. *Proselenodera* Y. Popov

Body roundedly triangular. General colour sandy yellow or light brown; pubescence short, light. Head vertical, triangular-elongated transversely. Gulae obliquely cut off posteriorly. Rostrum extending to between the posterior coxae. The anterior vertical part of the pronotum vaulted, and in the same plane as the head, i. e. sharply perpendicular to the rest of the body. Humeral angles protrude beyond the base of hemelytra. The horny strip between the humeral angles is distinct, but does not form a pad. Hypophyses more or less like wide shovels, with a keel on the outer side.

Type-species: *Ventocoris frater* Y. Popov

The new subgenus *Proselenodera* belongs to the genus *Ventocoris* Lap. The collected representatives of the genus are somewhat distinct from species of the subgenus *Selenodera* Horv., and are notable for the trigonosomoid structure of the head and the anterior part of the pronotum, i. e. the vertical state of head and the anterior part of pronotum, and also the prominent character of the latter; which are all typical for the subgenus *Ventocoris* Hahn. The structure of the parameres, and especially of the hypophyses, and distinctly protuberant humeral angles of pronotum show the very close relationship to the subgenus *Selenodera* Horv. Yet the condition of the head and the anterior part of the pronotum, and also the prominent nature of this part unquestionably recall the subgenus *Ventocoris* Hahn. Horv. The new subgenus is distinguished from both these subgenera by the shape of the head, the quite different structure of the gulae and the laminate widening of the anterior border of the prothorax.

Ventocoris (*Proselenodera*) *frater* Y. Popov

General shape of body triangular, slightly elongated, with a widely rounded posterior end (fig. 14); 1.15—1.2 times as long as wide. Colour light bellow or light brown, mat; rostrum, humeral angles and the anterior margin of pronotum, the base of the scutellum and the connexivum violet brown. Body with short, dense, adpressed pubescence. Whole surface of body densely regularly punctate.

Head triangular, in front regularly narrowed, the end sharp (fig. 18), in front view 1.2 times as wide (across the eyes) as high. Tylus moderately vaulted, pointed anteriorly; jugae projecting far beyond the

end of the tylus and enclosing it. Vertex 3.5 times as wide as the width of eyes; eyes moderately vaulted, inserted into the margin of head. Bucculae are covered by a strongly developed laminate widening of the anterior margin of the prothorax (fig. 15). Antennae thin, of uniform thickness throughout their length, almost twice as long as the height of the head; light yellow, with pale short hairs; relative lengths of antennal segments I:II:III:IV:V = 35:50:25:40:65 (♂) or 35:44:25:42:65 (♀).

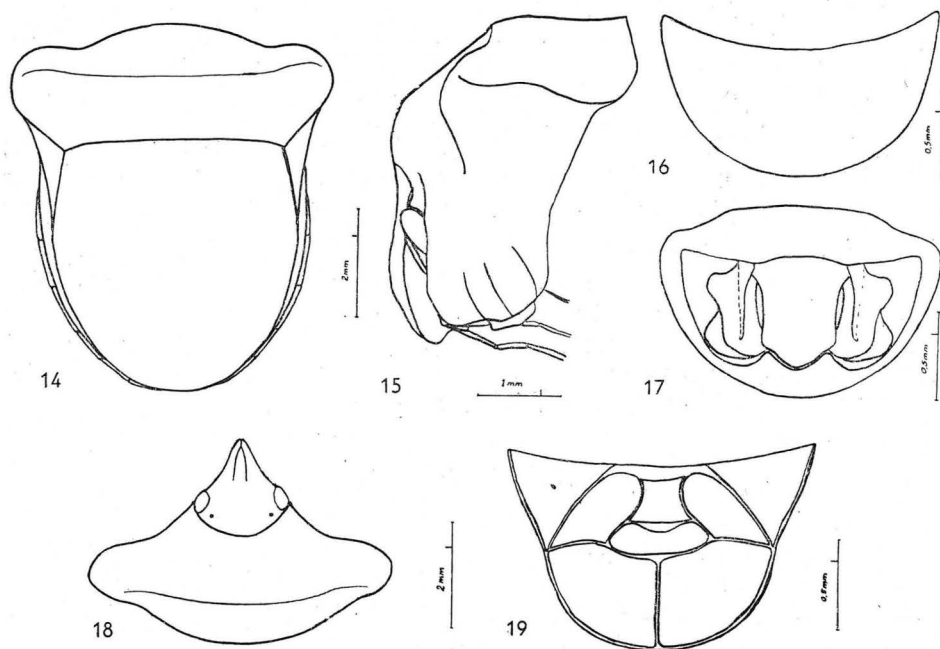


Fig. 14: *Trigonosoma (Proselemodera) frater* J. Pop., male (holotype). Fig. 15: male — head and pronotum, lateral view. Fig. 16: male — genital segment. Fig. 17: male — hypophyses. Fig. 18: male — head and pronotum in frontal view. Fig. 19: female — genital segment.

Pronotum transversely elongate, more than twice as wide as long; from above, the prominence of the anterior part covers the whole of the head; humeral angles obtuse, broadly rounded, slightly protruding beyond the base of the hemelytra; the transverse horny strip between the humeral angles distinct, polished and deprived of all punctation, ivory coloured. The anterior part of the pronotum with rather smooth transverse and longitudinal horny elevations (especially more distinct for ♂) and with punctation absent or sparse; the posterior half of the pronotum slightly vaulted, without any elevations, posterior margin of pronotum slightly concave; ends of humeral angles shiny, free from punctation. Scutellum almost as long as wide; punctation more or less dense, regular and dark.

Lower side light yellow, regularly pitted. The anterior part of gulae sharp and protruding; if seen from one side, this part is visible as

a triangular elongated spine. The laminate widening of the anterior part of the prothorax strongly developed, anterior and lower margins almost at right angles, the apex being slightly rounded (fig. 16). Legs light yellow, smooth, with fine punctation, especially on the posterior ones; ends of tibiae and the lower surface of tibiae and tarsi with short semierect hairs. Connexivum without elevations at the posterior edges of each segment. Sternites with weak diffuse (♂) or more dense (♀) punctation.

Genital segment in ♂ light yellow; seen from behind more than twice as wide as long (fig. 16), regularly pitted, but without obvious structure. Hypophyses (fig. 17) a wide more or less enlarged plate with a broadly rounded end and a projecting lateral angle. Ninth genital segment ♀ (fig. 19) 1.5 times as wide as long.

Holotype ♂. Length 7 mm.; width 5.7 mm. Head: length 1.79 mm.; width, including eyes 1.93 mm.; vertex 1.27 mm. Antennae: length of segment I — 0.5 mm.; II — 0.71 mm.; III — 0.36 mm.; IV — 0.57 mm.; V — 0.93 mm.

Allotype ♀. Length 7 mm.; width 5.7 mm. Head: 1.79 mm.; width 1.93 mm.; vertex 1.27 mm. Antennae: length of segments I — 0.5 mm.; II — 0.63 mm.; III — 0.36 mm.; IV — 0.6 mm.; V — 0.9 mm. Pronotum: length 2.3 mm.; width 6.0 mm.

The semidesert formation.

Material. Southern Kirghizia: Djalal-Abad, 22. V. 1957, 2 ♂♂ and 4 ♀♀ (Popov).

***Ventocoris (Selenodera) ceriferum* (Horv.)**

Djalal-Abad, 1 ♂, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — the valley of the Tchu river and the Upper Naryn (Atbashi), Leninabad, Tashkent, the valley of the Zeravshan river — Varzaminor (Oshanin, 1906), Tchimbkent (Oshanin, 1910) and Southern Turkmenia — Kuyren-Dagh mountain (Pazhitnova and Kiranova, 1956).

Distribution. Mid-Asia.

***Ventocoris (Selenodera) tataricum* Kirg.**

Djalal-Abad, 1 ♂ and 1 ♀, 800 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent; between Djizak and Tchinz, Zeravshan ridge (Oshanin, 1906) and Southern Turkmenia — Kyuren-Dagh mountain (Pazhitnova and Kiranova, 1956).

Distribution. Mid-Asia.

***Tarisa elevata* Reut.**

Djalal-Abad, 2 ♂♂ and 2 ♀♀, 800 m.; Kok-Yangak, 1 ♀, 1200 m.

In the semidesert and steppe formations.

This species has been recorded in the Mid-Asian part of the USSR

from Southern Kazakhstan — Koksengir mountain and Bet-Pak-Dala Desert (Asanova, 1962); Golodnaya Desert (Yachontov, 1962); Fergana Valley — Andijan, Osh (Kiritshenko, 1931), Gissar ridge — "Tigrovaya Balka" reserve (Kiritshenko, 1959) and also from Tashkent and Turkmenia — Repetek, Mulli-Kara (Oshanin, 1906 and Linnavuori, 1953).

Distribution. The South-European part of the USSR, Caucasus, Mid-Asia.

Vilpianus galii (Wolff)

Kok-Yangak, 1 ♂ and 1 ♀, 1200 m. Fergana ridge: Kara-Alma, 1 ♂, 1600 m. Pskem ridge: Pskem, 2 ♀♀, 1600 m. Ugam ridge: Syjak, 1 ♂, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone. On *Galium verum*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), the basin of the Syr-Daria — Tashkent, Humsan, Tchimgan, Kuiyuk, Mrke, Tchakpak, (Oshanin, 1910).

Distribution. Southern Europe, Algeria, Syria, Turkey, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

Ancyrosoma leucogrammes (Gmel.)

Djalal-Abad, 800 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600 m.

In the subdesert and steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from the steppes and foothills (Oshanin, 1891), Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Southern Europe, North Africa, Israel, Syria, Iraq, Turkey, Iran, the South-European part of the USSR, Mid-Asia.

Tholagmus flavolineatus (Fabr.)

Djalal-Abad, 800 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600 m.

In the semidesert and steppe formations, the tree-shrub zone. On *Prangos pabularia*.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan (Asanova, 1962), and also from Ashkhabad (Oshanin, 1910).

Distribution. Southern Europe, North Africa, Israel, Syria, Iraq, Turkey, Iran, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

Oplistochilus pallidus Jak.

Djalal-Abad, 800 m.; Suzak, 800 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600 m. Tchatkal ridge: Arkit, 1500—1700 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone. On *Prangos pabularia*, and also on *Artemisia dracuncululus* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Tashkent (Oshanin, 1906), Leninabad (Oshanin, 1910), Golodnaya Desert (Yachontov, 1962), Turkestan ridge — Guralash reserve (Pazhitnova, 1952) Gissar ridge — Kondara (Kiritshenko, 1951a) and Southern Turkmenia — Kyuren-Dagh mountain (Pazhitnova and Kiranova, 1956).

Distribution. Mid-Asia.

***Graphosoma lineatum* (L.)**

Djalal-Abad, 800 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1500—1800 m.; Sary-Tchilek lake, 2000—2500 m.; Parkent reserve, 1400—1600 m. Ugam ridge: Syjak, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the sparse forest and subalpine meadow.

Distribution. Europe, North Africa, Israel, Syria, Turkey, Iran, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

***Graphosoma consimile* Horv.**

Djalal-Abad, 800 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m. Tchatkal ridge: Arkit, 1400—1800 m.; Sary-Tchilek lake, 2000—2200 m. Ugam ridge: Syjak, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Prangos pabularia*, *Ferula ferganensis* and *Bunium chaerophylloides*.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain and Bet-Pak-Dala Desert (Asanova, 1962), Karatau ridge — Djulek; Talass ridge — Nikolaypol, Bish-Tash; Susamyr ridget — the valley of the Kokomeren river; Kizyl-Kum and Kara Kum Deserts, Golodnaya Desert; the valley of the Zeravshan river — Yargak, Djuma-Bazar, Yaban; Karategin ridge — Garm, Kalaichoit; Tchatkal ridge — Khodjakent; Darvaz ridge — Vantch and Kopet-Dagh ridge — Germab, Gaudan (Kiritshenko, 1931), Ashkhabad, Tashkent (Oshanin, 1906) and Gissar ridge — Kondara, Kvak (Kiritshenko 1951a).

Distribution. Iran, Afghanistan, Transcaucasus, Mid-Asia.

***Derula longipennis* Osh.**

Fergana ridge: Kara-Alma, 5 ♂♂ and 8 ♀♀, 1600—1800 m. Ugam ridge: Syjak, 2 ♀♀, 1600—1800 m.

In the mountain steppe formations, the tree-shrub zone, the mixed

forest. On *Bunium chaerophylloides*, and also on *Pimpinella* (Kiritshenko, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Karatau ridge, Ugam, Fergana, Zeravshan and Gissar ridges (Kiritshenko, 1952).

Distribution. Mid-Asia.

PENTATOMINAE

Apodiphus integriceps Horv.

Djalal-Abad, 3 ♂♂ and 1 ♀, 800 m.

The green plantations. On poplars, cork elms and oriental planes (Kiritshenko, 1959), and also on *Eleagnus angustifolius* (Muminov, 1961a).

This species has been recorded in the Mid-Asian part of the USSR from the Fergana Valley — Andijan, Djalal-Abad, Leninabad, Aival, Baga-Shamal; Zeravshan and Gissar ridges; Samarkand, Tashkent, Khiva; Djulek and other places of the foothills of the Karatau ridge, and also from the Darvaz ridge (Muminov, 1961a) and Turkmenia — Tchardjuy, Bayram-Ali, Dort-Kuy, Glurs, Tedjen (Kiritshenko, 1931).

Distribution. Iran, Afghanistan, Mid-Asia, Kashmir.

Menaccarus arenicola (Scholtz)

Ugam ridge: Syjak, 1 ♂ and 1 ♀, 1200 m.

The semidesert formation.

This species has been recorded in the Mid-Asian part of USSR from Central and Southern Kazakhstan (Asanova, 1962).

Distribution. Central and Southern Europe, Israel, Syria, Turkey, Iran, The South-West European part of the USSR, Mid-Asia.

Sciocoris deltocephalus Fieb.

Tchatkal ridge: Arkit, 1 ♂ and 1 ♀, 1600 m.

In the steppe formations and along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan, Tchimbent district — Beklarbek (Oshanin, 1910), Aschabad and Kopet-Dagh ridge (Linnavuori, 1953).

Distribution. Yugoslavia, Hungary, Roumania, Israel, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia.

Sciocoris distinctus Fieb.

Sciocoris hospes Kiritshenko, 1951a, nom. nud.

Fergan ridge: Kara-Alma, 1600—1800 m. Tchatkal ridge: Arkit, 1600—1800 m.; Sary-Tchilek lake, 2000—2200 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1600—1900 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Nepeta pannonica*, *Nepeta pulchella* and *Tamarix*.

At first these specimens were determined as *Sciocoris hospes* Kir. in litt. (Popov, 1960). When I managed to compare them with the species *Sc. distinctus* Fieb., I did not find enough differences to justify my consideration them as independent species. Therefore *Sc. hospes* Kir. is taken as a synonym of *Sc. distinctus* Fieb.

This species is known in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962), Tchatkal ridge (Popov, 1960) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Central and Southern Europe, Algeria, Israel, Syria, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia.

***Sciocoris sulcatus* Fieb.**

Djalal-Abad, 4 ♀♀, 800 m.; Suzak, 2 ♀♀, 800 m.

In the semidesert and steppe formations. With *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir (Asanova, 1962), Central Tien-Shan (Oshanin, 1906) Golodnaya Desert (Yachontov, 1962), Tashkent, Gissar ridge — Obi-Garm, Sary-Dju (Oshanin, 1910), Kondara (Kiritshenko, 1951a), and also from Turkmenia.

Distribution. Southern Europe, North Africa, Turkey, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

***Sciocoris cursitans* (Fabr.)**

Ugam ridge: Syjak, 2 ♀♀, 1700 m.

The tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain and Southern Kazakhstan — Koksengir mountain (Asanova, 1962).

Distribution. Europe, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia.

***Sciocoris agnatus* Jak.**

Djalal-Abad, 800 m. Fergana ridge: Kara-Alma, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone. On *Scabiosa songorica*.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan (Oshanin, 1906) and Gissar ridge — Kvak, Kondara (Kiritshenko, 1951a).

Distribution. Mid-Asia.

***Aelia acuminata* (L.)**

Fergana ridge: Kara-Alma, 1600—1900 m.; Kizyl-Unkur, 1600—1800 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1600—1900 m.; Sary-Tchilek lake, 2000—2200 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1900 m.; Nanay, 1600 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On Graminea.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Palaearctic region.

***Aelia furcula* Fieb.**

Djalal-Abad, 800 m.; Suzak, 800 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600 m.

In the semidesert and steppe formations, the tree-shrub zone. On Graminea.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Djam-bul, Kzyl-Orda (Oshanin, 1910); Central Tien-Shan — Frunze (Oshanin, 1910), Issyk-Kul lake (Panfilov, 1962); Golodnaya Desert (Yachontov, 1962); Tashkent, Leninabad, Samarkand, Repetek, and also from Gissar and Karategin ridges (Oshanin, 1910) and Turkestan ridge — Guralash reserve (Pazhitnova, 1952).

Distribution. Yugoslavia, Greece, Turkey, Iran, the South-European part of the USSR, Mid-Asia.

***Aelia melanota* Fieb.**

Ugam ridge: Syjak, 1 ♂ and 5 ♀♀, 1400 m.

The steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Djizak, Tashkent, Uzgen, Bukhara, Sary-Djuy, Karadag, Leninabad, Andijan (Oshanin, 1910), Golodnaya Desert (Yachontov, 1962) and Gissar ridge — Kondara (Kiritshenko, 1951a).

Distribution. Caucasus, Mid-Asia.

***Neottiglossa leporina* (H.-S.)**

Djalal-Abad, 900 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m.; Krasu lake, 2000 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1800 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—1900 m.

In the steppe and mountain steppe formations, the tree-shrub zone and the mixed forest.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962); Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962); Ugam ridge — Humsan; Tashkent (Oshanin, 1910), Turkestan ridge — Guralash reserve (Pazhitnova, 1952), Alay ridge — Gultcha, Yangryk (Kiritshenko, 1931) and Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Palaearctic region.

***Neottiglossa pusilla* (Gmel.)**

Fergana ridge: Kara-Alma, 1 ♂ and 2 ♀♀, 1700 m.

The tree-shrub zone.

This species is known in the Mid-Asian part of the USSR only from Fergana ridge — Kara-Alma (Arnoldi, 1949).

Distribution. Europe, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

***Stagonomus* (s. str.) *amoenus* (Brullé)**

Fergana ridge: Kara-Alma, 1600—1800 m. Ugam ridge: Nanay, 1600 m.

In the mountain steppe formations, the tree-shrub zone, the mixed forest.

This species has been recorded in the Mid-Asian part of the USSR from the Tashkent Alatau — Humsan, Tchimgan; Tchimkent (Southern Kazakhstan), Leninabad and Karategin ridge — Djan-Bulak (Oshanin, 1910).

Distribution. Southern Europe, North Africa, Israel, Syria, Iraq, Turkey, Iran, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

***Stagonomus* (*Dalleria*) *bipunctatus* (L.)**

Pskem ridge: Pskem, 3 ♀♀, 1800 m.

The tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from the steppes and foothills (Oshanin, 1891), Gissar ridge — Kondara, Kvak (Kiritshenko, 1951a).

Distribution. Southern Europe, North Africa, Israel, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia.

***Risibia mimula* (Kir.)**

Ugam ridge: Nanay, 1 ♂, 2000 m.

The mountain steppe formation in the rocky areas.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962); Samarkand district — Mokshevat, from where it was described (Kiritshenko, 1911), and also in the material of the Zoological Institute of the Academy of Sciences (Leningrad) from Kazakhstan — Abakumovskoe, Bassaga; Central Tien-Shan — Issyk-Kul lake, Kuldja; Gissar ridge — Iskander-Kul lake, Anzob pass.

Distribution. Mid-Asia.

***Eysarcoris inconspicuus* (H.-S.)**

Utchterek, 1 ♀, 1400 m.

The steppe formation.

This species has been recorded in the Mid-Asian part of the USSR

from Central Tien-Shan (Oshanin, 1891), Tashkent, Bukhara, Gissar and Turkmenia (Oshanin, 1910), and also from Southern Turkmenia — Kyuren-Dagh mountain (Pazhitnova and Kiranova, 1956).

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Iraq, Turkey, Iran, the European part of the USSR [the steppe and forest-steppe zones], Caucasus, Mid-Asia, and also the Oriental and Ethiopian regions.

***Holcostethus vernalis* (Wolff)**

Fergana ridge: Kara-Alma, 1600—1800 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1600—1800 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962), Kzyl-Orda (Oshanin, 1910); Central Tien-Shan — Przhevalsk, Fergana Valley — Kokand, Andijan, Osh; Tashkent, Eastern Bukhara — Tash-Kurgan (Oshanin, 1910).

Distribution. Palaearctic region.

***Holcostethus manifestus* Kir.**

Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m. Tchatkal ridge: Arkit, 1600—1800 m.; Sary-Tchilek lake, 2000—2200 m.

In the steppe and mountain steppe formations, the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Gissar ridge — Anzob pass, the valley of the Iskander-Dariya river, Sary-Tag, Khozor-Metch, Kvak, Khodja-Obi-Garm, Iol (Kiritschenko, 1952).

Distribution. Mid-Asia.

***Holcostethus peltatus* Jak.**

Djalal-Abad, 800 m.; Kok-Yangak, 1 ♂ and 1 ♀, 900—1200 m. Ugam ridge: Syjak, 1 ♂ and 3 ♀♀, 1200 m.

In the semidesert and steppe formations. On *Astragalus*.

This species has been recorded in the Mid-Asian part of the USSR from Gissar ridge — Kondara, Kvak (Kiritschenko, 1951a) and Ashkhabad (Oshanin, 1906).

Distribution. Mid-Asia.

***Mimula nigrita* Jak.**

Tchatkal ridge: Sary-Tchilek lake, 1 ♂ and 1 ♀, 2800 m.

In the subalpine and alpine meadows. It extends to 4500 m.

This species is known in the Mid-Asian part of the USSR from Pamir — Sary-Kol ridge, Nayza-Tash (Kiritschenko, 1931).

Distribution. Mid-Asia.

Palomena prasina (L.)

Fergana ridge: Kara-Alma, 1600—2000 m.; Kizyl-Unkur, 1800 m.; Kara-Unkur, 1800—2200 m. Tchatkal ridge: Arkit, 1400—1900 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Rosa fedtschenkoana*, *Epilobium hirsutum* and *Salix* sp.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Djazykul, Lepsinsk; Ugam ridge — Humsan [Oshanin, 1910] and Fergana ridge — Kara-Alma [Arnoldi, 1949].

Distribution. Palaearctic region.

Carpocoris fuscispinus (Boh.)

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 900—1200 m.; Oktyabrskoe, 900 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—2000 m.; Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1800—2200 m.; Karasu lake, 2000—2200 m.; the valley of the Karasu river, 1600—1900 m. Utchterek, 1400—1600 m. Tchatkal ridge: Arkit, 1400—1900 m.; Sary-Tchilek lake, 2000—2500 m.; Parkent reserve, 1400—1600 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—2000 m.; Nanay, 1600 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers. On *Nepeta maria*, *Nepeta pulchella*, *Scabiosa songorica*, *Achillea filipendulina*, *Cirsium turkestanicum*, *Onopordon acanthium*, *Echenais semenovi*, *Allium pskemense*, *Centaurea*, *Rumex crispus*, *Euphorbia*, *Salix*, *Spiraea hypericifolia*.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Palaearctic region.

Carpocoris pudicus (Poda)

Tchatkal ridge: Sary-Tchilek lake, 1 ♂ and 2 ♀♀, 2000 m.

The mountain formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain [Asanova, 1962], Djambul, Central Tien-Shan — Przhevalsk [Oshanin, 1910], Issyk-Kul lake [Panfilov, 1962]; the valley of the Zeravshan river [Oshanin, 1910].

Distribution. Palaearctic region.

Anthemina lunulata (Goeze)

Fergana ridge: the valley of the Karasu river, 2 ♂♂ and 1 ♀, 1700 m.

In the steppe and mountain steppe formations. On *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR from Central and Southern Kazakhstan [Asanova, 1962], Central Tien-Shan — Issyk-Kul lake [Panfilov, 1962], Przhevalsk; Fergana Valley [Oshanin, 1910], Turkmenia [Oshanin, 1906].

Distribution. Central and Southern Europe, Egypt, Israel, Syria, Iraq, Turkey, Iran, the European part of the USSR, Caucasus, Mid-Asia, Siberia.

***Antheminia pusio* (Kol.)**

Tchatkal ridge: Arkit, 1 ♂ and 1 ♀, 1600 m.

The steppe formation, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain, Bet-Pak-Dala (Asanova, 1962), Balkhash; Central Tien-Shan Ilisk (Oshanin, 1910), Issyk-Kul lake (Panfilov, 1962); Golodnaya Desert (Yakhontov, 1962), Gissar ridge — "Tigrovaya Balka" reserve (Kiritshenko, 1959); Turkmenia (Oshanin, 1910).

Distribution. Southern Europe, Syria, Iraq, Turkey, Iran, Caucasus, Mid-Asia.

Antheminia varicornis* (Jak.)

Djalal-Abad, 800 m.; Suzak, 800 m.

In the semidesert formation, along the river.

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Koksengir mountain, Bet-Pak-Dala Desert (Asanova, 1962); Central Tien-Shan — Issyk-Kul lake; Fergana Valley — Osh (Oshanin, 1910).

Distribution. Southern Europe, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia, Southern Siberia.

***Codophila varia* (Fabr.)**

Djalal-Abad, 800 m. Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600 m. Tchatkal ridge: Arkit, 1600—1800 m.; Sary-Tchilek lake, 2000 m. Ugam ridge: Syjak, 1600—1800 m.

In the semidesert, steppe and mountain steppe formations, along rivers. On *Artemisia*, *Nepeta maria*, *Achillea filipendulina*, and also on *Verbascum* and *Cousinia* (Pazhitnova, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Southern Kazakhstan — Bet-Pak-Dala Desert (Asanova, 1962); Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962), Frunze; Djambul, Tashkent, Djizak, Leninabad, Andijan, Osh, Ashkhabad, Karategin ridge (Kiritshenko, 1931), Turkestan ridge — Guralash reserve (Pazhitnova, 1952), Gissar ridge — Kondara, Kvak, Ruidasht (Kiritshenko, 1951a), "Tigrovaya Balka" reserve (Kiritshenko, 1959), Darvaz ridge (Muminov, 1961) and Kyuren-Dagh mountain (Pazhitnova and Kiranova, 1956).

Distribution. Southern Europe, North Africa, Israel, Syria, Iraq, Turkey, Iran, the European part of the USSR (the steppe and forest-steppe zones), Caucasus, Mid-Asia.

*) *Antheminia varicornis* (Jak.) was transferred from genus *Dolycoris* Mls. & Rey to the genus *Codophila* Mls. & Rey as *Codophila (Antheminia) varicornis* (Jak.) by L. Tamanini (Tamanini, 1958).

***Dolycoris penicillatus* Horv.**

Djalal-Abad, 800 m.; Suzak, 800 m.; Baza-Kurgan, 900—1200 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1900 m.; Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1900—2200 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1400—1800 m.; Sary-Tchilek lake, 2000—2500 m. Pskem ridge: Pskem, 1600—1800 m. Ugam ridge: Syjak, 1600—2000 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers. On *Nepeta maria* and *Achillea filipendulina*, and also on *Verbascum* and *Perovskia scrophulaefolia* (Pazhitnova, 1952).

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Iran, Mid-Asia.

***Brachynema germari* Kol.**

Djalal-Abad, 800 m.; Suzak, 800 m.; Bazar-Kurgan, 900—1200 m.

In the semidesert and steppe formations.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Southern Europe, North Africa, Sahara, Israel, Syria, Iraq, Turkey, Iran, the South-European part of the USSR, Caucasus, Mid-Asia.

***Bagrada stolata* Horv.**

Fergana ridge: the valley of the Karasu river, 3 ♂♂ and 2 ♀♀, 1700 m.; Utchterek, 2 ♀♀, 1500 m.

In steppe and mountain steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962); Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962).

Distribution. Southern Europe, the South-European part of the USSR, Mid-Asia.

***Bagrada kaufmanni* Osh.**

Ugam ridge: Syjak, 1 ♀, 1500 m.

The steppe formation. On *Lepidium latifolium* and *Capparis spinosa* (Kiritshenko, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Kzyl-Orda, Tashkent, Leninabad, foothills of the Zeravshan ridge — Yakkabak (Oshanin, 1910), Golodnaya Desert (Oshanin, 1910; Yakhontov, 1962), Samarkand (Oshanin, 1906), and also from the Turkestan ridge — Ura-Tyube and Gissar ridge — Kurgan-Tyube, Djilikul, Uialy, Tugalan and Parchar (Kiritshenko, 1952).

Distribution. Iran, Mid-Asia.

Eurydema (s. str.) oleraceum (L.)

Fergana ridge: Kara-Alma, 1600—800 m.; Kizyl-Unkur, 1600—1800 m.; Kara-Unkur, 1900 m.; the valley of the Karasu river, 1600—1900 m. Tchatkal ridge: Arkit, 1600—1900 m.; Sary-Tchilek lake, 2000 m. Pskem ridge: Pskem, 1700 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the three-shrub zone, the mixed forest, along rivers. On *Barbarea*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain (Asanova, 1962); Southern Kazakhstan — Djambul (Oshanin, 1910); Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962), Alma-Ata, Uzun-Agatch, Djazil-Kul, Teptek, Temirlik, Karkara, Przhevalsk; Tashkent Alatau — Tchimgan, Humsan; the valley of the Zeravshan river — Varzaminor (Oshanin, 1910); Alay ridge — Gultcha (Kiritshenko, 1931) and Gissar ridge — Kvak, Ruidasht, Ziddy (Kiritshenko, 1951a).

Distribution. Palaearctic region.

Eurydema (s. str.) ornatum (L.)

Fergana ridge: Atchi, 3 ♂♂ and 9 ♀♀, 1400—1600 m.; the valley of the Karasu river, 2 ♂♂ and 2 ♀♀, 1600 m. Utchteerek, 1 ♂ and 3 ♀♀, 1400 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, Iran, the European part of the USSR, Caucasus, Mid-Asia, Kashmir, North-Western China.

Eurydema (s. str.) ornatum f. decoratum (H.-S.)

Djalal-Abad, 800 m.; Bazar-Kurgan, 900—1200 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m.; Kizyl-Unkur, 1600—1800 m.; the valley of the Karasu river, 1600—1800 m. Tchatkal ridge: Arkit, 1400—1800 m. Ugam ridge: Syjak, 1200—1600 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Barbarea*.

This form is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, Iran, Afghanistan, the European part of the USSR, Caucasus, Mid-Asia, India, China.

Eurydema (s. str.) ornatum f. chloroticum Horv.

Ugam ridge: Syjak, 1 ♂ and 7 ♀♀, 1700 m.

The tree-shrub zone.

This form has been recorded in the Mid-Asian part of the USSR from the Kazakhstan steppes only (Oshanin, 1910).

Distribution. Turkey, the South-European part of the USSR, Caucasus, Mid-Asia.

***Eurydema (Rubrodorsalium) maracandicum* Osh.**

Djalal-Abad, 800 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m. Tchatkal ridge: Arkit, 1200—1700 m.

In the semidesert, steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, along rivers. On *Barbarea*, and also on *Lepidium latifolium* (Kiritshenko, 1952).

I quote V. F. Oshanin's description of *Eurydema maracandicum* Osh. from his work "About Hemiptera from the Zeravshan Valley", because of its inaccessibility.

„Supra nigro aenea, subtus livida; puncto verticus, maculis minutus jugorum, marginibusque reflexis pavitis lividis; pronoti margine antico, lineis media longitudinali et transversali (hac ramos duos ad marginem posticum emittente) lividis; marginibus lateralibus et postico nec non macula antica rubris; lineis, in marginibus lateralibus scutelli sitis et in $\frac{3}{4}$ ejus longitudinus conjunctus, lividis; apice scutelli rubro; excorio macula media nigra excepta, suturaque membranali lividis; punctis duobus mesocorii rubris. Venter lividus, seriebus sex longitudinalibus macularum nigrarum notatis. Pedes lividi, nigro variegati, Antennae nigrae.

„♂ Long. corp. 7 mm, lat. corp. 4 mm. ♀ Long. 9 mm, lat. corp. 5 mm.

„Prope Samarkand communissima species (Mus. Univ. Mosc.)“.

Colour of body above black, with greenish, metallic lustre. One small pale yellow spot on the vertex and the middle of jugae; margins of the head, beginning from the eyes, pale yellow. Jugal spots variable; sometimes they are so large that they occupy the whole base of the jugae; sometimes they are completely absent. The anterior margin of the pronotum pale yellow, lateral and posterior margins red; with two pale yellowish stripes, one median longitudinal, the other transversal; these stripes make a cross on the pronotum; there being an elevation at the crossing place of these stripes, red in colour and extending to the anterior margin. One pale yellow stripe goes away from each side of the transverse stripe, directed to out and to the side. Both the transverse stripes and their branches may extend light coloured margins of the pronotum of finish in the black spot; sometimes the posterior branches of the transverse stripe disappear, so that the black coloured red area desintegrates into six separate spots, sometimes more or less fused. Two pale yellow stripe along lateral margins of scutellum turn inward and fuse; the longitudinal red stripe runs back from the place of their fusing, enlarged into a terminal spot. Excorium and membranoid furrow pale yellow; with a black spot in the middle of the excorium; two red spots on the mesocorium; membrane brown with a white border. Venter red above. Connexivum with black quadrangular spots. Colour of the lower side pale

yellow or white; rarely pinkish; a black spot on and around the jugae. Lateral margins of prothorax red below; with semicircular stripe on the sides of each thoracic segment. Six longitudinal rows of black points; two external rows on the margin of the venter, beginning on the third or sometimes the second segment; the two next rows along the spiracles, the space between them and the external margin of the venter being red; and finally two internal rows, drawn together and extended to the sixth segment by an unpaired, but often double-fanshaped spot. The spots of these rows are never fused. Antennae black. Tibiae of the anterior legs black on the anterior and posterior surfaces; there is a narrow pale yellow stripe on the upper surface; the lower surface pale yellow, with two black rings at the end, the first ring usually not complete. The black colour is replaced at the base by pale yellow on the next pair of legs. The anterior tibiae black, with a yellow strip on the upper surface; middle and posterior tibiae pale yellow, the base and tip black. Tarsi and antennae black. Rostrum black, the first segment pale yellow.

This species has been recorded in the Mid-Asian part of the USSR from Samarkand, Tashkent (Oshanin, 1906), and is widely distributed through the whole of Mid-Asia.

Distribution. Iran, the South-East European part of the USSR, Transcaucasus, Mid-Asia.

Eurydema (Rubrodorsalium) ventrale Kol.

Djalal-Abad, 800 m.; Kok-Yangak, 900—1200 m. Fergana ridge: Kara-Alma, 1600—1800 m. Tchatkal ridge: Arkit, 1200—1800 m. Pskem ridge: Pskem, 1600 m. Ugam ridge: Syjak, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone, along rivers. On *Nepeta maria*.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962) Kirghizian steppes, Djizak, Tashkent, Zeravshan Valley — Yagnob (Oshanin, 1910), Turkestan ridge — Guralash reserve (Pazhitnova, 1952) and Gissar ridge — Kondara (Kiri-tschenko, 1951a).

Distribution. Central and Southern Europe, Algeria, Egypt, Israel, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia, India.

Priassus exemptus (Walk.)

Mesopriassus vetustus nom. nud., Kiritschenko, 1951a.

Fergana ridge: Kara-Alma, 2 ♂♂ and 2 ♀♀, 1800—2000 m. Tchatkal ridge: Sary-Tchilek lake, 2 ♀♀, 2000 m.

In the forest steppe and forest zone. On *Acer turkestanica*. It is a sylvan meso-dendrophyll type.

This species has been recorded in the Mid-Asian part of the USSR from the material of the Zoological Institute of the Academy of Science (Leningrad) from Southern Kirghizia: Fergana ridge, Uzbek-Gava, 9. VIII.

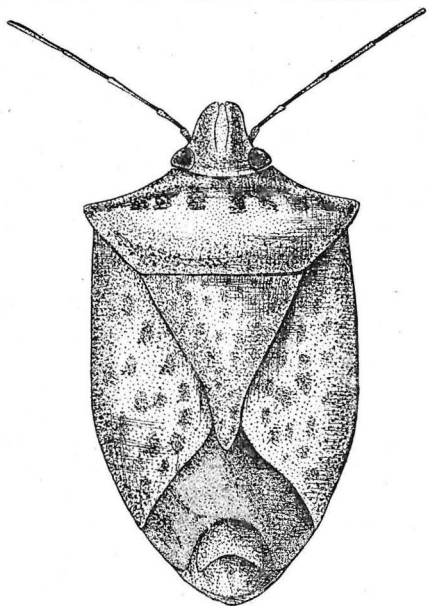


Fig. 20: *Priassus exemptus* (Walk.), male.

In the mountain steppe formations, the tree-shrub zone, the mixed forest and sparse forest. On *Juglans regia*, *Picea schrenkiana*, *Populus boleana*, *Betula tienschanica*.

This species is widely distributed through the whole of the Mid-Asian part of the USSR.

Distribution. Mid-Asia.

1937, 70 ♂♂ and 76 ♀♀ (Kiritshenko); Arslanbob, 20. VII. 1936, 1 ♂ and 3 ♀♀ (Prutenskiy). Tadjikistan: Gissar ridge, Khodja-Obi-Garm, 18. IX. 1943. 7 ♂♂ and 6 ♂♂ (Kiritshenko); Kondara, 8 ♂♂ and 8 ♀♀ (Gussakovski, Kiritshenko, Lopatin, Kulinitch, Degtyareva): Kvak, 35 km. to North from Dushambe, 18. IX. 1945, 2 ♀♀ (Gussakovski).

Distribution. Afganistan, Mid-Asia, Burma, Assam, Himalaya, Tenasserim.

***Rhaphigaster brevispina* Horv.**

Fergana ridge: Kara-Alma, 2 ♂♂ and 1 ♀, 1800 m. Tchatkal ridge: Sary-Tchilek lake, 1 ♂ and 1 ♀, 2200 m. Ugam ridge: Syjak, 1 ♀, 1800 m.; Nanay, 1 ♀, 2500 m.

ASOPINAE

***Picromerus bidens* (L.)**

Ugam ridge: Nanay, 1 ♀, 2500 m.

The sparse forest.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Przhevalsk; Southern Kazakhstan — Djambul; Ugam ridge — Humsan (Oshanin, 1910).

Distribution. Europe, Algeria, the European part of the USSR, Caucasus, Mid-Asia, Siberia.

***Rhacognathus punctatus* (L.)**

Fergana ridge: Karasu lake, 1 ♂ and 2 ♀♀, 1900 m.

The tree-shrub zone, along rivers.

This species has been recorded in the Mid-Asian part of the USSR only from Alay (Oshanin, 1910).

Distribution. Europe, the European part of the USSR, Caucasus, Mid-Asia, Siberia, Far East, China, Japan.

Jalla dumosa (L.)

Tchatkal ridge: Sary-Tchilek lake, 1 ♂, 2800 m.

The alpine meadow.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan (Oshanin, 1906) and Alay (Oshanin, 1910).

Distribution. Palaearctic region.

Zicrona coerulea (L.)

Fergana ridge: Kara-Unkur, 1 ♀, 900 m.; the valley of the Karasu river, 1 ♂, 1800 m. Ugam ridge: Nanay, 1 ♀, 2000 m.

In the steppe and mountain steppe formations, the tree-shrub zone, the mixed forest, the subalpine meadow, along rivers. This species often feeds on larvae of *Haltica* [Coleoptera, Chrysomelidae]. It is worth noting that in the European part of the USSR this bug lives on oaks and feeds on *Haltica saliceti* Ws.

This species has been recorded in the Mid-Asian part of the USSR from Central-Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962); Central Tien-Shan — Issyk-Kul lake (Panfilov, 1962); Western Tien-Shan (Oshanin, 1906) and Golodnaya Desert (Yakhontov, 1962).

Distribution. Palaearctic region, and also Oriental and Nearctic regions (Canada, USA).

ACANTHOSOMATINAE

Acanthosoma forcipatum Reut.

Tchatkal ridge: Sary-Tchilek lake, 3 ♂♂ and 9 ♀♀, 2000—2200 m.

In the mountain steppe formations, the mixed forest, the sparse forest. On *Prangos pabularia*, and also on *Ribes* (Kiritshenko, 1952).

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Tarbagatay ridge (Oshtanin, 1906), Przhevalsk (Oshanin, 1910, Kiritshenko, 1952), Alma-Ata (Kiritshenko, 1952); Talass ridge — Utchmaral, Bishtash lake, Tchitchen river, Turdak river, Tuyuk; Kirgizian ridge — Shamsi; Terskey Alatou — Aksu river; Fergana ridge — Padsha-Ata, Gava (Kiritshenko, 1952); Tchatkal ridge (Popov, 1960); Gissar ridge — Iskander-Kul lake, Sarytag, Khozor-Metch, Khodja-Obi-Garm and Pamir — Khorog (Kiritshenko, 1952).

Distribution. Mid-Asia.

CYDNIDAE

CYDNINAE

Aethus nigrinus (Fabr.)

Pskem ridge: Pskem, 1 ♀, 1600 m. Ugam ridge: Syjak, 1 ♀, 1500 m.

In steppe and mountain steppe formations. On *Artemisia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan (Oshanin, 1891) and Tashkent (Oshanin, 1906).

Distribution. Palaearctic region.

Aethus pilosulus (Klug.)

Tchatkal ridge: Parkent reserve, 3 ♀♀, 1400 m.

In the steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan — Issyk-Kul lake [Panfilov, 1962]; Golodnaya Desert (Yakhontov, 1962), Tashkent and Askhabad (Oshanin, 1906).

Distribution. Southern Europe, North Africa, the South-European part of the USSR, Caucasus, Mid-Asia.

Geotomus elongatus (H.-S.)

Djalal-Abad, 1 ♂, 800 m. Ugam ridge: Syjak, 2 ♀♀, 1500 m.

The steppe formation.

This species has been recorded in the Mid-Asian part of the USSR from Tashkent, Leninabad and Ashkhabad (Oshanin, 1910).

Distribution. Central and Southern Europe, North Africa, Israel, Syria, Turkey, the South-European part of the USSR, Caucasus, Mid-Asia.

Cydnus aterrimus (Först.)

Fergana ridge: Kara-Alma, 2 ♀♀, 1700 m.

In the mountain steppe formations and the tree-shrub zone.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan, Fergana Valley — Osh, Savat; Ugam ridge — Humsan (Oshanin, 1910).

Distribution. Palaearctic region, and also Ethiopian, Oriental and Australian regions.

SEHIRINAE

Legnotus picipes (Fall.)

Fergana ridge: Kara-Alma, 2 ♂♂ and 1 ♀, 1600—1800 m.

In the steppe and mountain steppe formations, the tree-shrub zone. On *Prangos pabularia*.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan and Alay (Oshanin, 1910).

Distribution. Central and Southern Europe, the European part of the USSR, Caucasus, Mid-Asia.

Sehirus morio (L.)

Fergana ridge: Kara-Alma, 1 ♂ and 1 ♀, 1600 m. Ugam ridge: Syjak, 1 ♀, 1500 m.

In the steppe and mountain steppe formations.

This species has been recorded in the Mid-Asian part of the USSR from Central Kazakhstan — Kokshetau mountain; Southern Kazakhstan — Koksengir mountain (Asanova, 1962); Central Tien-Shan — Alma-Ata;

Tashkent, Turkmenia — Urmitan [Oshanin, 1910]; Gissar ridge — Kon-dara [Kiritshenko, 1951a].

Distribution. Central and Southern Europe, Algeria, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

***Tritomegas bicolor* (L.)**

Fergana ridge: Kara-Alma, 2 ♂♂ and 1 ♀, 1600—1800 m. Tchatkal ridge: Sary-Tchilek lake, 1 ♂ and 1 ♀, 1800—2000 m.

The tree-srub zone, the mixed forest, along rivers.

This species has been recorded in the Mid-Asian part of the USSR from Central Tien-Shan [Oshanin, 1891] and Fergana ridge [Arnoldi, 1949].

Distribution. Europe, North Africa, Israel, Turkey, the European part of the USSR, Caucasus, Mid-Asia, Siberia (Irkutsk).

Eco-zoogeographical review of some biotops

Apart from recording the heteropteran fauna in general of the investigated areas and the distribution of individual species, I was particularly interested in the phytophagous species. In this connection I must outline first the nature of the vegetation of the areas in question; this being intimately connected with the fauna of Heteroptera under study.

As the Heteroptera were mainly collected in mountainous areas, the vertical zonation of the common plants (phytocoenosis) typical for Tien-Shan was considered. Distinctive features of the southern part of this region are the continental climate, rather dry (particularly in the foothill zones), the presence of mesophyll walnut forests, a special precipitation period, and also the presence of clearly defined vertical zones, differing in natural conditions.

In the present work the author has used, with little alteration, a scheme of vegetational zones, proposed by E. Lavrenko and S. Sokolov and has distinguished the intrazonal differences of the riparian vegetation.

1. Zone of the semidesert sparse pistache and undershrubs (700—900 m).
2. Zone of the steppoid sparse juniper forests with the wheat-beard grass groups (900—1500 m).
3. The forest steppe zone (1400—2200 m).
 - a) Walnut-fruit and mixed forests.
 - b) Mountain steppes.
4. Subalpine zone (2000—3000 m).
 - a) Sparse-fir forests.
 - b) Subalpine meadows and highmountain steppes.
5. Alpine zone (2500 m and higher).
6. Flood land.

1. Zone of the semidesert ephemeral vegetation

The strongly xerophilous areas occupy chiefly the belt of semidesert shrubs and strongly xerophilous steppes of the southern type, which extend as deep tongues into the foothill steppes of the mountain regions.

The basis of the vegetation cover of these formations is ephemeral sage-brush phytocoenosis, represented by ephemeral coenoses of *Carex pachystylus*, *C. stenophylla*, *Poa bulbosa*, *Hordeum bulbosum*, and undershrub sage-brush *Artemisia tenuisecta*, *A. porrecta*, *A. eremophila*, and also *Artemisia maritima*, which forms so-called "sage brush steppe". Also it is possible to see various species of *Alhagi*, *Cousinia* (*C. resinosa*), *Salsola*, *Cirsium* and others. There are many *Pistacia vera* (pistache), *Amygdalis spinosissima* (almond), *Cerasus erythrocephala* (cherry) and *Atraphaxis pyrifolia* (goat's wheat) along the slopes of the valleys, gorges and hills, often on the red tertiary deposits (near Djalal-Abad).

In spring a rapid and rich development of ephemerals and ephemeroïds takes place, forming a luxuriant cover of newly green plants. Then a prolonged rainless period begins, resulting in the almost complete burning off the ephemeral vegetation. In autumn the activity of the ephemeral plants again resumes and continues for the winter period.

On *Carex*, *Artemisia* and *Atraphaxis* were discovered such species as *Stenodema v. turanicum* Reut., *St. v. virens* L., *Notostira erratica* L., *Trigonotylus ruficornis* Geoffr., *Orthotylus fieberi* Frey, *Amblytulus concolor* Jak., species of genera *Polymerus*, *Piesma*, *Coriomeris*, *Stictopleurus*, *Centrocoris volxemi* Put., *Chorosoma schillingi* Sch., *Aelia furcula* Fieb., *Codophila varia* Fabr., *Carpocoris fuscispinus* Boh., *Anthemina lunulata* Goeze, and also species of genus *Odontotarsus*.

Species of bugs discovered in this zone comprise mainly elements of Mediterranean (55.2%) and Mid-Asian groups (24.7%), i. e. xerophilous species, of which 27 per cent are endemic. The influence of the Near-East element is the strongest (10.4%).

There were discovered the following species in this formation:

- | | |
|--|--|
| <i>Orius ribauti</i> E. Wgn. | <i>Aspilaspis viridis</i> (Brullé) |
| <i>Stenodema turanicum</i> Reut. | <i>Nabis palifer</i> Seid. |
| <i>Stenodema laevigatum</i> (L.) | * <i>Pasira basiptera</i> Stål*) |
| <i>Stenodema virens</i> (L.) | * <i>Ectomocoris ululans</i> Rossi |
| <i>Notostira erratica</i> (L.) | * <i>Reduvius christophi</i> Jak. |
| <i>Trigonotylus ruficornis</i> (Geoffr.) | <i>Piesma maculatum</i> (Lap.) |
| <i>Adelphocoris lineolatus</i> (Goeze) | * <i>Piesma maculatum</i> f. <i>viridis</i> (Jak.) |
| <i>Lygus gemellatus</i> (H.-S.) | * <i>Monosteira discoidalis</i> Jak. |
| <i>Polymerus unifasciatus</i> (Fieb.) | * <i>Serenthia atricapilla</i> Spin. |
| <i>Polymerus dissimilis</i> (Reut.) | <i>Scantius aegyptius</i> (L.) |
| <i>Charagochilus gyllenhali</i> Fall. | * <i>Xerophagus aurora</i> Kir. |
| <i>Deraeocoris punctulatus</i> (Fall.) | <i>Apterola lowni</i> Saund. |
| <i>Deraeocoris serenus</i> (Dgl.) | * <i>Nysius cimicoides</i> (Spin.) |
| <i>Globiceps fulvicollis</i> f. <i>cruciatus</i> Reut. | <i>Engistus exanguis</i> Stål |
| * <i>Orthotylus fieberi</i> Frey | <i>Artheneis alutacea</i> Fieb. |
| <i>Orthocephalus bivittatus</i> Fieb. | <i>Platyplax salviae</i> (Schill.) |
| <i>Oncotylus desertorum</i> Reut. | * <i>Leptodemus bicolor</i> Lindb. |
| <i>Malthacosoma halimocnemis</i> (Beck.) | <i>Oxycarenus pallens</i> (H.-S.) |
| <i>Amblytulus concolor</i> Jak. | <i>Oxycarenus lacteus</i> Kir. |
| <i>Plagiognathus bipunctatus</i> Reut. | * <i>Hyalocoris pilicornis</i> Jak. |

Lamprodema maurum Fabr.
Peritrechus gracilicornis Put.
Bleteogonus beckeri (Frey)
Emblethis verbasci (Fabr.)
Emblethis denticollis Horv.
Centrocoris volxemi (Put.)
Coriomeris scabricornis (Panz.)
Coriomeris vitticollis Reut.
**Coriomeris hirticornis* (Fabr.)
Camptopus lateralis (Germ.)
**Corizomorpha janowskyi* Jak.
Rhyparochromus quadratus (Fabr.)
Brachycarenum tigrinus (Schill.)
Stictopleurus abutilon (Rossi)
**Maccevetus persicus* Jak.
**Agrophopus lethierryi* Stål
Chorosoma schillingi (Schill.)
Odontoscelis fuliginosa (L.)
Odontotarsus purpureolineatus (Rossi)
Odontotarsus impictus Jak.
Odontotarsus angustatus Jak.
**Melanodema carbonarium* Jak.
Eurygaster integriceps Put.

Leprosoma tuberculatum Jak.
Tarisa elevata Reut.
Ventocoris advenum (Horv.)
**Ventocoris ceriferum* (Horv.)
**Ventocoris tataricum* Kirk.
**Ventocoris frater* Y. Pop.
Ancyrosoma leucogrammes (Gmel.)
Tholagus flavolineatus (Fabr.)
Oplistocheilus pallidus Jak.
Graphosoma lineatum (L.)
Graphosoma consimile Horv.
**Apodiphus integriceps* Horv.
Menaccarus arenicola (Schl.)
**Sciocoris sulcatus* Fieb.
Aelia furcula Fieb.
Carpocoris fuscispinus (Boh.)
Antheminia varicornis (Jak.)
Codophila varia (Fabr.)
Dolycoris penicillatus Horv.
Brachynema germari Kol.
Eurydema ornatum f. *decoratum* (H.-S.)
Eurydema maracandicum Osh.

Holarctic element		Palaeartic element		Euro-Siberian element		European element		Mediterranean element	
5 sp. 4.7%		9 sp. 10.6%		3 sp. 3.5%		1 sp. 1.2%		26 sp. 30.6%	
Pontomediterranean element		Anterior-Asian element		Turanian element		Mid-Asian element			
12 sp.	14%	9 sp.	10.6%	15 sp.	17.6%	6 sp.	7.1%		

Among the abovementioned species 23 species were found only in these plant formations.

2. Zone of the steppoid sparse juniper forests with the wheat-beard grass groups

The wheat-grass formations occupy most of the area within this zone represented by the most xeromorphic species of the wheat-grass (*Agropyron trichophorum*). The greater part has barley (*Hordeum bulbosum*), beard-grass (*Andropogon ischaemum*), brome-grass (*Bromus macrostachys*) and elecampane (*Inula grandis*). All the abovementioned species of plants form various associations, which depend on altitude and particular local conditions and which often mix with the formations of the sage brush (*Artemisia persica*, *A. lehmanniana*) and Lamiaceae (*Nepeta panonica*, *Origanum tyttanthum*, *Hissopus seravschanicus*).

*) Species ascertained only in this formation are marked by an asterisk, *.

The high layer is formed by isolated trees of juniper (*Juniperus semiglobosa*, *J. polycarpus*) and by groups of the tree-shrubs (*Rosa kokinica*, *R. fedtschenkoana*, *Spiraea hypericifolia*, sometimes separate tree-shrubs of *Atraphaxis pyrifolia*). Among them are usually found some species of hawthorn (*Crataegus turkestanica*, *C. songorica*), pistache (*Cerasus pseudoprostrata*, *C. erythrocarpa*, *C. tienschanica*), woodbine (*Lonicera karelini*), alycha (*Prunus sogdiana*), barberry (*Berberis oblonga*) and so on.

Most of Miridae and Legaeidae were collected in the grass layer of the characteristic zone as well as in the mountain steppe. Many xerophilous species were found in the graminea association. Some of them were met in the semidesert zone too: *Stenodema v. turanicum* Reut., *St. laevigatum* (L.), *St. virens* (L.), *Notostira erratica* (L.), *Trigonotylus ruficornis* (Geoffr.), *Adelphocoris lineolatus* (Goeze), *Polymerus unifasciatus* (Fieb.), *Charagochilus gyllenhali* (Fall.), *Orthocephalus bivittatus* Fieb., *Orthotylus fieberi* Frey, *Malthacosoma halimocnemis* (Beck), *Amblytulus concolor* Jak., *Nabis palifer* Seid., *Piesma maculatum* (Lap.), *Oxycarenus pallens* (H.-S.), *Oxycarenus lacteus* Kir., *Peritrechus geniculatus* Put., *Rhyparochromus quadratus* (Fabr.), *Emblethis denticollis* Horv., *Centrocoris volxemi* (Put.), *Coriomeris vitticollis* Reut., *Coriomeris scabricornis* (Panz.), *Chorosoma schillingi* (Schill.), *Stictopleurus abutilon* (Rossi), *Odontoscelis fuliginosa* (L.), *Odontotarsus impictus* Jak., *Odontotarsus purpureolineatus* (Rosi), *Eurygaster integriceps* Put., *Aelia furcula* Fieb., *Brachynema germari* Kol., *Irochrotus lanatus* (Pall.) were found under *Agropyron trichophorum*.

It is necessary to distinguish from the other the following species: *Leptopterna ferrugata* (Fall.), *Trigonotylus pulchellus* (Hahn.), *Dicyphus orientalis* Reut., *Orthotylus flavosparsus* (Sahlb.), *Oncotylus punctipes* Reut., *Amblytulus testaceus* Reut., *Piesma kochiae* (Beck), *Catoplatus citrinus* Horv., *Nysius graminicola* Kol., *Cymus claviculus* (Fall.) *Geocoris fedtschenkoii* Reut., *Berytinus clavipes* (Fabr.), *Haploprocta pustulifera* Stål, *Coriomeris pallidus* Reut., *Rhopalus distinctus* (Sign.), *Rhopalus subrufus* (Gmel.), *Odontotarsus angustatus* Jak., *Eurygaster maura* (L.), *Sciocoris agnatus* Jak., *Aelia acuminata* (L.), *Aelia melanota* Fieb., *Anthemina pusio* (Kol.) *Anthemina lunulata* (Goeze), *Bagrada stolata* Horv.

Lygus pratensis (L.) *Lygus pachynemus* Reut. and *Eysarcoris inconspicuus* (H.-S.) were encountered in the sage brush associations (*Artemisia persica*, *A. lehmanniana*).

It was interesting to collect on *Ziziphora bungeana* — *Calocoris fedtschenkoii* Reut., *Deraecoris punctulatus* (Fall.), *Plagiorhamma suturale* (H.-S.), *Metopoplax origani* Kol., and also on *Nepeta pannonica* and *Hissopus seravschanica* — *Adelphocoris lineatus* (Goeze), *Calocoris fedtschenkoii* Reut., *Lygus pratensis* (L.), *Lygus pachynemus* Reut., *Polymerus vulneratus* (Panz.), *Heterogaster parens* Jak., *Heterogaster artemisiae* (Schill.).

Lygus pratensis (L.) and *Maccevethus lineola* (Fbr.) were caught on *Inula grandis*, *Carpocoris fuscispinus* (Boh.) and *Dolycoris penicillatus* Horv. — on *Cirsium* and *Onopordon*.

The author managed to find *Gonocerus patellatus* Kir. and *Carpocoris fuscispinus* (Boh.) in the shrub formations of rose (*Rosa kokanica*, *Rosa fedtschenkooana*), *Lygus pratensis* (L.), *Orthops pilosulus* Jak., *Campylomma diversicornis* Reut., *Nysius helveticus* f. *ochraceus* (Pop.), *Ortholomus punctipennis* (H.-S.) and *Metopoplax origani* (Kol.) — on the goat's-wheat (*Atraphaxis pyrifolia*), beneath it — *Berytinus montivagus* Mey.

Species of bugs discovered in this zone consist mainly of Palaearctic (13.4%), Euro-Siberian (10.5%), Mediterranean (23.9%), Pontomediterranean (10%), Mid-Asian (14.9%) and European (10.5%) elements.

The Heteroptera fauna of this zone is composed of the following species:

- | | |
|--|---|
| <i>Anthocoris pilosus</i> Jak. | <i>Oncotylus setulosus</i> (H.-S.) |
| <i>Orius niger</i> (Wolff) | <i>Malthocosoma halimocnemis</i> (Beck.) |
| <i>Orius ribauti</i> E. Wgn. | <i>Amblytylus concolor</i> Jak. |
| <i>Stenodema calcaratum</i> (Fall.) | <i>Amblytylus testaceus</i> Reut. |
| <i>Stenodema trispinosum</i> (Reut.) | <i>Criocoris quadrimaculatus</i> (Fall.) |
| <i>Stenodema v. turanicum</i> Reut. | <i>Plagiognathus bipunctatus</i> Reut. |
| <i>Stenodema laevigatum</i> (L.) | <i>Plagiognathus chrysanthemi</i> (Wolff) |
| <i>Stenodema holsatum</i> (Fabr.) | <i>Plagiognathus bicolor</i> (Jak.) |
| <i>Stenodema virens</i> (L.) | <i>Plagiognathus albipennis</i> (Fall.) |
| <i>Notostira erratica</i> (L.) | <i>Chlamydatus pullus</i> (Reut.) |
| <i>Trigonotylus ruficornis</i> (Geoffr.) | <i>Campylomma diversicornis</i> Reut. |
| <i>Trigonotylus pulchellus</i> (Hahn.) | <i>Tuponia prasina</i> (Fieb.) |
| <i>Leptopterna ferrugata</i> (Fall.) | <i>Prostemma sanguineum</i> (Rossi) |
| <i>Adelphocoris lineolatus</i> (Goeze) | <i>Nabis palifer</i> Seid. |
| <i>Adelphocoris jakovlevi</i> (Reut.) | <i>Aspilaspis viridis</i> (Brullé) |
| <i>Calocoris fedtschenkoi</i> Reut. | <i>Nabis rugosus</i> (L.) |
| <i>Brachycoleus decolor</i> Reut. | * <i>Nabis maracandicus</i> Reut. |
| <i>Brachycoleus decolor</i> f. <i>marginata</i> Stich. | <i>Holotrichius moestus</i> Reut. |
| <i>Lygus pratensis</i> (L.) | <i>Rhinocoris abramovi</i> Osh. |
| <i>Lygus pachynemus</i> Reut. | <i>Rhinocoris iracundus</i> (Pod.) |
| <i>Agnocoris rubicundus</i> (Fall.) | <i>Rhinocoris monticola</i> f. <i>jucunda</i> (Horv.) |
| <i>Orthops kalmi</i> (L.) | <i>Phymata crassipes</i> (L.) |
| * <i>Orthops pilosulus</i> Jak. | <i>Piesma maculatum</i> (Lap.) |
| <i>Polymerus vulneratus</i> (Panz.) | <i>Piesma kochiae</i> (Beck.) |
| <i>Polymerus unifasciatus</i> (Fabr.) | * <i>Galeatus inermis</i> (Jak.) |
| <i>Polymerus cognatus</i> (Fieb.) | <i>Stephanitis pyri</i> (Fabr.) |
| * <i>Polymerus brevicornis</i> Reut. | <i>Tingis auriculata</i> (Costa) |
| <i>Polymerus dissimilis</i> Reut. | * <i>Tingis leptochila</i> Horv. |
| <i>Charagochillus gyllenhali</i> (Fall.) | <i>Tingis pauperata</i> (Put.) |
| <i>Capsus cinctus</i> (Kol.) | <i>Catoplatus citrinus</i> Horv. |
| <i>Deraeocoris punctulatus</i> (Fall.) | * <i>Catoplatus fulvicornis</i> (Jak.) |
| <i>Deraeocoris serenus</i> (Dgl. et Sc.) | <i>Dictyla echii</i> (Schrk.) |
| <i>Deraeocoris pilipes</i> Reut. | <i>Octacysta rotundata</i> (H.-S.) |
| <i>Campyloneura decorata</i> Kir. | <i>Scantius aegyptius</i> (L.) |
| * <i>Hallodapus suturalis</i> (H.-S.) | <i>Pyrrhocoris apterus</i> (L.) |
| <i>Pilophorus sinuaticollis</i> Reut. | <i>Pyrrhocoris marginatus</i> (Kol.) |
| <i>Orthocephalus bivittatus</i> Fieb. | <i>Tropidothorax leucopterus</i> (Goeze) |
| <i>Halticus apterus</i> (L.) | <i>Lygaeus equestris</i> (L.) |
| <i>Halticus pusillus</i> (H.-S.) | <i>Lygaeus rubriceps</i> Horv. |
| <i>Cyrtorrhinus caricis</i> (Fall.) | <i>Melanocoryphus albomaculatus</i> (Goeze) |
| <i>Globiceps cruciatus</i> Reut. | <i>Melanocoryphus superbus</i> (Poll.) |
| <i>Orthotylus fieberi</i> Frey | * <i>Melanocoryphus tristrami</i> (Dgl. & Sc.) |
| <i>Orthotylus flavosparsus</i> (Sahl.) | <i>Apterola lowi</i> (Saund) |
| <i>Oncotylus punctipes</i> Reut. | <i>Lygaeosoma reticulatum</i> (H.-S.) |

- Nysius ericae* (Schill.)
Nysius graminicola (Kol.)
Nysius graminicola f. *lucida* Y. Pop.
Nysius helveticus f. *ochraceus* (Y. Pop.)
Ortholomus punctipennis (H.-S.)
Cymus claviculus (Fall.)
Cymus glandicolor Hahn.
Ischnodemus sabuleti (Fall.)
Geocoris ater (Fabr.)
Geocoris ater f. *steveni* Put.
Geocoris fedtschenkoi Reut.
Artheneis alutacea Fieb.
**Holcocranum diminutum* Horv.
Heterogaster cathariae f. *bicolor* Kol.
Heterogaster parens Jak.
Heterogaster artemisiae (Schill.)
Platyplax salviae (Schill.)
**Leptodemus minutus* (Jak.)
**Microplax interrupta* (Fieb.)
Metapoplix origani (Kol.)
Oxycarenus pallens (H.-S.)
Oxycarenus lacteus Kir.
Megalonotus hirsutus (Fieb.)
**Megalonotus colon* Fieb. et Put.
**Tropistethus fasciatus* Ferr.
Pterotmetus staphyliniformis (Schill.)
Pionosomus opacellus Horv.
Ischnocoris punctulatus (Fieb.)
Lamprodema maurum (Fabr.)
Plinthisus cautus Y. Pop.
Stignocoris rusticus (Fall.)
**Hadrocnemis rufescens* (Jak.)
Peritrechus gracilicornis Put.
**Sphragisticus nebulosus* (Fall.)
Aphanus rolandri (L.)
Bleteogonus beckeri (Frey)
Rhyparochromus albomaculatus (Goeze)
Rhyparochromus quadratus (Fabr.)
Beosus quadripunctatus (Mull.)
Beosus maritimus (Scop.)
Emblethis ciliatus Horv.
**Emblethis angustus* Mont.
**Emblethis osmanus* Seid.
Emblethis griseus (Wolff)
Emblethis denticollis Horv.
Letheus picipes H.-S.
Neides tipularius (L.)
Berytinus clavipes (Fabr.)
**Berytinus montivagus* Mey
Gampsocoris punctipes (Germ.)
Gonocerus patellatus Kir.
Coreus marginatus (L.)
Syromastus rhombeus (L.)
**Haploprocta pustulifera* Stål
Enoplops eversmanni Jak.
Centrocoris volxemi (Put.)
Spathocera lobata (H. S.)
Dicranocephalus ferghanensis (Horv.)
Coriomeris scabricornis (Panz.)
Coriomeris vitticollis Reut.
**Coriomeris pallidus* Reut.
Camptomus lateralis (Germ.)
Corizus hyosciami (L.)
Corizus limbatus limbatus (Reut.)
Liorhyssus hyalinus (Fabr.)
Rhopalus subrufus (Gmel.)
Rhopalus distinctus (Sign.)
Brachycarenum tigrinus (Schill.)
Stictopleurus abutilon (Rossi)
Stictopleurus unicolor Jak.
Maccevethus lineola (Fabr.)
Maccevethus persicus Jak.
Chorosoma schillingi (Schill.)
Odontoscelis fuliginosa (L.)
Irochrotus lanatus (Fall.)
Odontotarsus purpureolineatus (Rossi)
Odontotarsus furvus Kir.
Odontotarsus impictus Jak.
Odontotarsus angustatus Jak.
Psacasta exanthematica (Scop.)
**Phimodera nodicollis* (Burm.)
Eurygaster integriceps Put.
Eurygaster maura (L.)
Ventocoris advenum (Horv.)
Tarisa elevata Reut.
Vilpianus galii (Wolff)
Ancyrosoma leucogrammes (Gmel.)
Tholagmus flavolineatus (Fabr.)
Oplistochilus pallidus Jak.
Graphosoma lineatum (L.)
Graphosoma consimile (Horv.)
Sciocoris deltocephalus Fieb.
Sciocoris distinctus Fieb.
Sciocoris agnatus Jak.
Aelia acuminata (L.)
Aelia furcula Fieb.
**Aelia melanota* Fieb.
Neottiglossa leporina (H.-S.)
Eysarcoris inconspicuus (H.-S.)
Holcostethus vernalis (Wolff)
Holcostethus manifestus Kir.
Holcostethus peltatus Jak.
Carpocoris fuscispinus (Boh.)
Antheminta lunulata (Goeze)
Antheminta pusio (Kol.)
Codophila varia (Fabr.)
Dolycoris penicillatus Horv.
Brachynema germari Kol.
Bagrada stolata Horv.
**Bagrada kaufmanni* Osh.
Eurydema oleraceum (L.)
Eurydema ornatum (L.)
Eurydema ornatum f. *decoratum* (H.-S.)
Eurydema maracandicum Osh.
Eurydema ventrale (Kol.)
Zicrona caerulea (L.)
Aethus nigratus (Fabr.)
**Aethus pilosulus* (Klug.)
**Geotomus elongatus* (H.-S.)
Legnotus picipes (Fall.)
Sehirus morio (L.)

The Heteroptera fauna of this zone is composed of the following faunal elements:

Cosmopolitan		Holarctic element		Palaeartic element		Euro-Siberian element		European element	
2 sp.	1%	17 sp.	8.3%	27 sp.	13.1%	23 sp.	11.2%	11 sp.	5.3%
Mediterranean element		Pontomediterranean element		Anterior-Asian element		Turanian element		Mid-Asian element	
48 sp.	23.3%	21 sp.	10.2%	13 sp.	6.3%	13 sp.	6.3%	31 sp.	15%

Among the abovementioned species 25 species were found only in these plant associations.

3. The forest steppe zone

a) Walnut-fruit and mixed forests

These plant formations include almost all the regions investigated by authors, but with different emphasis.

The walnut forests are represented by vast tracts of forest with a little Schrenk's spruce (*Picea schrenkiana*) and Semenov's fir (*Abies semenovi*) in the Arkit state-farm and Sary-Tchilek lake regions of the Tchatkal ridge. The walnut forests form large tracts or separate areas of forest on the Fergana ridge (Kara-Alma, Arslanbob, Kizyl-Unkur), and it is only in the subalpine zone of Kara-Unkur that they are replaced to a small extent by *Picea schrenkiana*. The areas of the Tashkent Alatou are very uniform with regard to the degree of development of the walnut and broad-leaved forests: the broad-leaved vegetations are developed along the Tchirtchik river, yet a brush-wood of juniper is developed only along the Angren river. The greatest areas covered by walnut forests with the strongly developed underbrush are in Sijak, Khumsan and Nanay districts and along the Pskem river.

In this zone the broad-leaved walnut-fruit forests (*Juglans regia*, *Malus kirghisorum*) are very widely spread with a sprinkling of Turkestan maple, which forms separate forests in some places (Fergana ridge, Kyzil-Unkur). Occasionally there are stunted birchs (*Betula turkestanica*) along rivers. The fruit component of the characteristic forests consist of apple-tree (*Malus kirghisorum*), pear (*Pirus regelti*) with the underbrush of alycha (*Prunus sogdiana*), hawthorn (*Crataegus turkestanica*, *C. songorica*), abelia (*Abelia corymbosa*) and exochorda (*Exochorda tienshanica*). There are many junipers in some places. *Juniperus semiglobosa* and *Juniperus seravschanica* are found in the grass cover and other places.

We can see *Prangos pabularia*, *P. tschimganica*, *Ferula ferganensis*, *F. angreni*, *Stachys betoniciflora*, *Althea nudiflora*, *Euphorbia lamprocarpa*, *Dactylus glomerata*, *Poa nemoralis*, *Carex melanostachia* and other

in the grass associations. The dark-brown soil occurs mainly in forests and mountain soil in meadow steppes and underbrushes.

Pyrrhocoris apterus (L.) under ruts and the half-dry bark of trees, and also individual bugs *Rhyparochromus sogdianus* (Kir.). *Tritomegas bicolor* (L.) were found in the soil under *Juglands regia*; *Phytocoris kirgisicus* Y. Pop., *Palomena prasina* (L.), *Priassus exemptus* (Walk.) and *Rhaphigaster brevispina* Horv. were discovered inside of the foliage of *Acer turkestanica*; *Rhyparochromus sogdianus* (Kir.) and *Aphanus rolandri* (L.) were caught under *Abelia corymbosa*.

Anthocoris pilosus Jak., *Orthops kalmi* (L.), *Campyloneura decorata* Kir., *Halticus apterus* (L.), *Plagiognathus chrysanthemi* (Wolff.), *Rhinocoris monticola* Osh., *Lygaeus equestris* (L.), *Heterogaster parens* Jak., *Heterogaster cathariae* (Geoffr.), *Pterotmetus staphyliniformis* (Shill.), *Rhyparochromus sogdianus* (Kir.), *Rhyparochromus pini* (L.), *Coreus marginatus* (L.), *Spathocera lobata* (H.-S.), *Ceraleptus obtusus* (Brullé), *Graphosoma lineatum* (L.), *Derula longipennis* Osh., *Sciocoris distinctus* Fieb., *Stagonomus amoenus* (Brullé), *Holcostethus vernalis* (Wolff), *Eurydema maracandicum* Osh., *Eurydema ornatum* f. *decoratum* (H.-S.), *Eurydema oleraceum* (L.), *Eurydema ventrale* (Kol.). The last four species were noticed on *Sisymbrium loeseli* (Cruciferae) and were very often collected in the grass cover.

Species of bugs discovered in this formation consist mainly of Palaearctic (28.9%), Holarctic (14%), Mediterranean (15%) and Midd-Asian (19.3%) elements.

The following species have been ascertained:

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|--|---|
| <i>Anthocoris pilosus</i> Jak. | <i>Chlamydatus pullus</i> (Reut.) |
| <i>Orius niger</i> (Wolff) | <i>Monosynamma basale</i> (Reut.) |
| <i>Stenodema calcaratum</i> (Fall.) | <i>Rhinocoris kiritshenkoi</i> Y. Pop. |
| <i>Stenodema trispinosum</i> (Reut.) | <i>Rhinocoris iracundus</i> (Poda) |
| <i>Stenodema laevigatum</i> (L.) | <i>Rhinocoris monticola</i> Osh. |
| <i>Stenodema holsatum</i> (Fabr.) | <i>Coranus subapterus</i> (De Geer) |
| <i>Notostira erratica</i> (L.) | <i>Piesma capitatum</i> (Wolff) |
| * <i>Phytocoris kirgisicus</i> Y. Pop. | <i>Stephanitis pyri</i> (Fabr.) |
| <i>Adelphocoris lineolatus</i> (Goeze) | <i>Dictyla echii</i> (Schrk.) |
| <i>Calocoris fedtschenkoi</i> Reut. | <i>Pyrrhocoris apterus</i> (L.) |
| <i>Brachycoleus decolor</i> f. <i>marginata</i> Stich. | <i>Tropidothorax leucopterus</i> (Goeze) |
| <i>Lygus pratensis</i> (L.) | <i>Lygaeus equestris</i> (L.) |
| <i>Lygus lucorum</i> Mey | <i>Lygaeus rubriceps</i> Horv. |
| <i>Lygus gemellatus</i> (H.-S.) | <i>Nysius groenlandicus</i> (Zett.) |
| <i>Orthops kalmi</i> (L.) | <i>Heterogaster cathariae</i> (Geoffr.) |
| <i>Orthops kalmi</i> f. <i>orientalis</i> Reut. | <i>Heterogaster parens</i> Jak. |
| <i>Polymerus unifasciatus</i> (Fabr.) | <i>Heterogaster artemisiae</i> Schill. |
| <i>Deraeocoris punctulatus</i> (Fall.) | <i>Megalonotus chiragra</i> (Fabr.) |
| <i>Campyloneura decorata</i> Kir. | <i>Pterotmetus staphyliniformis</i> (Schill.) |
| <i>Orthocephalus bivittatus</i> Fieb. | <i>Peritrechus geniculatus</i> (Hahn.) |
| <i>Halticus apterus</i> (L.) | <i>Aphanus rolandri</i> (L.) |
| <i>Halticus pussilus</i> (H.-S.) | <i>Rhyparochromus pini</i> (L.) |
| <i>Globiceps fulvicollis</i> f. <i>cruciatus</i> Reut. | <i>Rhyparochromus quadratus</i> (Fabr.) |
| <i>Orthotylus marginalis</i> Reut. | <i>Rhyparochromus sogdianus</i> Kir. |
| <i>Acrotelus pilosicornis</i> (Reut.) | * <i>Drymus sylvaticus</i> (Fabr.) |
| <i>Plagiognathus chrysanthemi</i> (Wolff) | <i>Coreus marginatus</i> (L.) |
| <i>Plagiognathus fulvipennis</i> (Krschb.) | <i>Spathocera lobata</i> (H.-S.) |
| <i>Plagiognathus albipennis</i> (Fall.) | <i>Dicranocephalus ferghanensis</i> (Horv.) |

Bathysolen nubilis (Fall.)
 **Nemocoris falleni* F. Sahlb.
Ceraleptus obtusus (Brullè)
Coriomeris scabricornis (Panz.)
Camptopus lateralis (Germ.)
Corizus hyosciami (L.)
Liorhyssus hyalinus (Fabr.)
Rhopalus parumpunctatus (Schill.)
Rhopalus distinctus (Sign.)
Brachycarenum tigrinus (Schill.)
Stictopleurus abutilon (Rossi)
Odontotarsus purpureolinatus (Rossi)
Eurygaster integriceps Put.
Graphosoma lineatum (L.)
Graphosoma consimile Horv.
Derula longipennis Osh.
Sciocoris deltocephalus Fieb.
Sciocoris distinctus Fieb.

Aelia acuminata (L.)
Neottiglossa leporina (H.-S.)
Stagonomus amoenus (Brullè)
Palomena prasina (L.)
Holcostethus vernalis (Wolff)
Holcostethus manifestus Kir.
Carpocoris fuscispinus (Boh.)
 **Carpocoris pudicus* (Poda)
Dolycoris penicillatus Hory.
Eurydema maracandicum Osh.
Eurydema ornatum f. *decoratum* (H.-S.)
Eurydema oleraceum (L.)
Priassus exemptus (Wolk.)
Rhaphigaster brevispina Horv.
 **Picromerus bidens* (L.)
Zicrona coerulea (L.)
Tritomegas bicolor (L.)

The Heteroptera fauna of this formation is composed of the following faunal elements:

Cosmopolitan		Holarctic element		Palaeartic element		Euro-Siberian element		European element	
6.5%	6 sp.	14%	13 sp.	28.9%	27 sp.	8.6%	8 sp.	1.1%	1 sp.
Mediterranean element		Pontomediterranean element		Anterior-Asian element		Mid-Asian element			
14 sp.	15%	5 sp.	5.4%	1 sp.	1.1%	18 sp.	19.3%		

Among the abovementioned species only 5 species were found in this formation.

b) Mountain steppe

The mountain steppe occupies the greatest area in comparison with the other formations and it spread over a wide altitude range (1400—2200 m.), penetrating into neighbouring vegetation zones; and their elements are components of some other zones. The open slopes (particularly the southern ones) are covered with ephemeroid meadows or steppes with a predominance of barley (*Hordeum bulbosum*), wheat-grass (*Agropyron trichophorum*) and beard-grass (*Andropogon ischaemum*). The sage-brush (*Artemisia persica*, sometimes *Artemisia sacrorum*), Lamiaceae (*Nepeta*, *Origanum*), and also Compositae associations occupy large areas in this zone (*Cirsium turkestanicum* and *Echenais sieversi*); and honeysuckle thickets are frequent (*Lonicera karelini*). Indeed almost all the abovementioned plant species of the walnut and fruit forests and the mixed forests are found in the steppe formation, and also in the steppoid zone of juniper sparse forest; but with different development of other

vegetables and associations and some new mountain plants (*Prangos*, *Freula*, *Polygonum* and others). Plants of this formation have longer leaves (altitude — dependent) in comparison with the other, lower-lying zones, and therefore it is possible to collect comparatively large numbers of hemipteran species from a wide range of vegetation formations over a long period. Because of the length of survival of the vegetation and the great extent of the mountain steppe, the author managed to collect the bulk of all the Hemiptera occurring in this zone.

For the most part, the same bugs were collected in the grass layer of the mountain steppe zone as in the sparse juniper forest, but with some additions: *Plagiognathus albipennis* (Fall.) and *Nysius groenlandicus* (Zett.) — on *Artemisia persica*; *Megalocoleus molliculus* (Fall.) — *Artemisia sacrorum*; *Pilophorus sinuaticollis* Reut., *Myrmecophyes limbatus* Reut. and *Neides tipularius* (L.) — on *Ziziphora bungeana*; *Rhopalus parumpunctatus* (Schill.) — on *Hissopus seravschanicus*; *Calocoris conspersipes* Reut., *Stictopeurus abutilon* (Rossi), *Corizus limbatus limbatus* Reut., *Rhopalus parumpunctatus* f. *lepidus* (Fieb.), *Odontotarsus purpureolineatus* (Rossi), *Psacasta exanthematica* (Scop.) — on *Tanacetum pseudoachillea*; *Sciocoris agnatus* Jak. and *Carpocoris fuscipinus* (Boh.) — on *Scabiosa songorica*; *Macrotylus cruciatus* (Sahlb.), *Brachioceleus decolor* f. *marginatus* Stich., *Lygaeus rubriceps* Horv., *Oplistochilus pallidus* Jak., *Tholgmus flavolineatus* (Fabr.), *Legnotus picipes* (Fall.) — on *Prangos pabularia*; *Odontotarsus purpureolineatus* (Rossi) — on *Sanguisorba polygonum*; *Tingis pauperata* (Put.) — on *Lamium album*; *Heterogaster cathariae* (Geoffr.); *Vilpianus galii* — on *Galium verum*; *Aellopus atratus* (Goeze) — under *Prangos pabularia*; *Batysolen nubilis* (Fall.), *Odonotoscelis fuliginosa* (L.) and *Antheminia lunulata* (Goeze) — under *Artemisia*.

The following species have been ascertained:

- | | |
|---|--|
| <i>Anthocoris pilosus</i> Jak. | <i>Polymerus vulneratus</i> (Panz.) |
| <i>Stenodema calcaratum</i> (Fall.) | <i>Polymerus cognatus</i> (Fieb.) |
| <i>Stenodema trispinosum</i> (Reut.) | <i>Charagochilus gyllenhali</i> (Fall.) |
| <i>Stenodema holsatum</i> (Fabr.) | <i>Capsus cinctus</i> (Kol.) |
| <i>Stenodema v. virens</i> (L.) | * <i>Liocoris tripustulatus</i> (Fabr.) |
| <i>Stenodema v. turanicum</i> Reut. | <i>Deraeocoris punctulatus</i> (Fall.) |
| <i>Notostira erratica</i> (L.) | <i>Deraeocoris serenus</i> (Dgl. et Sc.) |
| <i>Trigonotylus ruficornis</i> (Geoffr.) | <i>Deraeocoris pilipes</i> Reut. |
| <i>Trigonotylus pulchellus</i> (Hahn.) | * <i>Deraeocoris scutellaris</i> (Fabr.) |
| * <i>Phytocoris confinis</i> Y. Pop. | * <i>Dicyphus thoracicus</i> Reut. |
| <i>Adelphocoris lineolatus</i> (Goeze) | * <i>Dicyphus orientalis</i> Reut. |
| <i>Adelphocoris jakovlevi</i> (Reut.) | <i>Pilophorus sinuaticollis</i> Reut. |
| <i>Calocoris fedtshenkoi</i> Reut. | <i>Campyloneura decorata</i> Kir. |
| <i>Brachycoleus decolor</i> Reut. | <i>Orthocephalus bivittatus</i> Fieb. |
| <i>Brachycoleus decolor</i> f. <i>marginatus</i> Stich. | <i>Halticus apterus</i> (L.) |
| <i>Lygus pratensis</i> (L.) | <i>Cyrtorrhinus caricis</i> (Fall.) |
| <i>Lygus pachycnemis</i> Reut. | <i>Globiceps fulvicollis</i> f. <i>cruciatus</i> Reut. |
| <i>Lygus lucorum</i> (Mey.) | <i>Orthotylus marginalis</i> Reut. |
| <i>Agnocoris rubicundus</i> (Fall.) | <i>Orthotylus turanicus</i> Reut. |
| <i>Orthops kalmi</i> (L.) | <i>Orthotylus flavosparsus</i> (Sahlb.) |
| <i>Orthops kalmi</i> f. <i>orientalis</i> Reut. | * <i>Myrmecophyes limbatus</i> Reut. |
| <i>Orthops pilosulus</i> Jak. | <i>Oncotylus setulosus</i> (H.-S.) |
| <i>Polymerus unifasciatus</i> (Fabr.) | <i>Oncotylus reuteri</i> (Osh.) |

- Oncotylus punctipes* Reut.
 **Solenoxypus lepidus* [Fabr.]
Megalocoleus molliculus [Fall.]
Acretelus pilosicornis [Reut.]
Orthonotus fuscicornis [Reut.]
Coniortodes kiritshenkoi Kerzh.
 **Psallus cognatus* Jak.
Criocoris quadrimaculatus [Fall.]
Plagiognathus bipunctatus Reut.
Plagiognathus chrysanthemi [Wolff]
Plagiognathus bicolor [Jak.]
Plagiognathus albipennis [Fall.]
Plagiognathus fulvipennis [Krschb.]
 **Plagiognathus alpinus* [Reut.]
Eumecotarsus breviceps [Reut.]
Chlamydatus pullus [Reut.]
Monosynamma basale [Reut.]
Campylomma nicolasi Put. et Reut.
Campylomma diversicorne Reut.
Tuponia elegans [Jak.]
Prostemma sanguineum [Rossi]
Nabis palifer Seid.
Nabis ferghanensis Rem.
Holotrichius moestus Reut.
 **Rhinocoris abramovi* Osh.
Rhinocoris kiritshenkoi Y. Pop.
Rhinocoris iracundus [Poda]
Rhinocoris monticola Osh.
Rhinocoris monticola f. *jucunda* [Horv.]
Coranus subapterus [De Geer]
Phymata crassipes [L.]
Piesma capitatum [Wolff]
Piesma kochiae [Beck.]
Stephanitis pyri [Fabr.]
 **Tingis rotundicollis* [Jak.]
Tingis auriculata [Costa]
 **Tingis pilosa* Humm.
Tingis pauperata [Put.]
Catoplatys citrinus Horv.
Dictyla echii [Schrk.]
Octacysta rotundata [H.-S.]
Scantius aegyptius [L.]
Pyrrhocoris apterus [L.]
Pyrrhocoris marginatus [Kol.]
Tropidothorax leucopterus [Goeze]
Lygaeus equestris [L.]
Lygaeus rubriceps Horv.
Melanocoryphus albomaculatus [Goeze]
 **Melanocoryphus heydeni* Put.
Lygaeosoma reticulatum [H.-S.]
Nysius ericae [Schill.]
Nysius groenlandicus [Zett.]
Nysius graminicola [Kol.]
Nysius graminicola f. *lucida* Y. Pop.
Nysius helveticus [H.-S.]
Nysius helveticus f. *ochraceus* [Pop.]
Ortholomus punctipennis [H.-S.]
Cymus claviculus [Fall.]
Cymus obliquus Horv.
Cymus glandicolor Hahn.
 **Kleidocerys resedae* [Panz.]
Ischnodemus sabuleti [Fall.]
Henestaris halophilus [Burm.]
Geocoris fedtschenkoi Reut.
Artheneis alutacea Fieb.
Heterogaster cathariae [Geoffr.]
Heterogaster cathariae f. *bicolor* Kol.
Heterogaster parens Jak.
Heterogaster artemisiae [Schill.]
Platyplax salviae [Schill.]
 **Camptotelus lineolatus* [Schill.]
Metopoplax origani [Kol.]
Oxycarenus pallens [H.-S.]
Oxycarenus lacteus Kir.
Megalonotus hirsutus [Fieb.]
Megalonotus chiragra [Fabr.]
Megalonotus sabulicola [Thoms.]
 **Icus angularis* Fieb.
Pterotmetus staphyliniformis [Schill.]
Stygnocoris rusticus [Fall.]
Lamprodema maurum [Fabr.]
Ischnocoris punctulatus [Fieb.]
Plinthinus cautus Y. Pop.
 **Plinthinus brevipennis* [Latr.]
 **Plinthinus hungaricus* Horv.
Peritrechus geniculatus [Hahn.]
Perritrechus gracilicornis Put.
Aellopus atratus [Goeze]
Bleteogonus circumcinctus [Reut.]
Trapezonotus arenarius [L.]
Rhyparochromus quadratus [Fabr.]
Rhyparochromus sogdianus [Kir.]
 **Rhyparochromus simplex* [Jak.]
Rhyparochromus pini [L.]
Beosus quadripunctatus [Mull.]
Ischnopesa hirticornis [H.-S.]
 **Emblethis karamanus* Seid.
Emblethis griseus [Wolff]
 **Emblethis nigricans* Y. Pop.
Emblethis verbasci [Fabr.]
Emblethis ciliatus Horv.
Emblethis denticollis Horv.
Lethaeus picipes H.-S.
 **Scolopostethus lethierryi* Jak.
Scolopostethus affinis [Schill.]
 **Scolopostethus pilosus* Reut.
Neides tipularius [L.]
Berytinus clavipes [Fabr.]
Gampsocoris punctipes [Germ.]
Gonocerus patellatus Kir.
Coreus marginatus [L.]
Syromastus rhombeus [L.]
Enoplops eversmanni Jak.
Spathocera lobata [H.-S.]
Dicranocephalus ferghanensis [Horv.]
Bathysolen nubilis [Fall.]
Ceraleptus obtusus [Brullé]
Coriomeris scabricornis [Panz.]
 **Alydus calcaratus* [L.]
Camptopus lateralis [Germ.]
Corizus hioscyami [L.]
Corizus limbatus limbatus [Reut.]

- *Corizus tetraspilus* Horv.
Liorhyssus hyalinus (Fabr.)
Rhopalus subrufus (Gmel.)
Rhopalus parumpunctatus (Schill.)
Rhopalus parumpunctatus f. *lepidus* (Fieb.)
Rhopalus distinctus (Sign.)
Brachycarenum tigrinus (Schill.)
**Stictopleurus crassicornis* (L.)
Stictopleurus abutilon (Rossi)
Stictopleurus unicolor Jak.
Maccevethus lineola (Fabr.)
**Odontoscelis dorsalis* (Fabr.)
Odontoscelis fuligiosa (L.)
**Trochrotus lanatus* (Fall.)
Odontotarsus purpureolineatus (Rossi)
Odontotarsus furvus Kir.
Odontotarsus impictus Jak.
Psacasta exanthematica (Scop.)
Eurygaster integriceps Put.
Eurygaster maura (L.)
Vilpianus galii (Wolff)
Tholagnus flavolineatus (Fabr.)
Oplistocheilus pallidus Jak.
Graphosoma lineatum (L.)
Graphosoma consimile Horv.
Derula longipennis Osh.
Sciocoris deltocephalus Fieb.
**Sciocoris cursitans* (Fabr.)
Sciocoris distinctus Fieb.
Sciocoris agnatus Jak.
Aelia acuminata (L.)
Aelia furcula Fieb.
Neottiglossa leporina (H.-S.)
**Neottiglossa pussila* (Gmel.)
Stagonomus amoenus (Brullè)
**Stagonomus bipunctatus* (L.)
Holcostethus vernalis (Wolff)
Holcostethus manifestus Kir.
Palomena prasina (L.)
Carpocoris fuscispinus (Boh.)
Anthemina lunulata (Goeze)
Codophila varia (Fabr.)
Dolycoris penicillatus Horv.
Bagrada stolata Horv.
Eurydema maracandicum Osh.
Eurydema ventrale (Kol.)
Eurydema ornatum f. *decoratum* (H.-S.)
Eurydema ornatum f. *chloroticum* Horv.
Eurydema oleraceum (L.)
Rhaphigastis brevispinis Horv.
Zicrona coerulea (L.)
Acanthosoma forcipatum Reut.
Aethus nigrinus (Fabr.)
Cydnus aterrimus (Forst.)
Legnotus picipes (Fall.)
Sehirus morio (L.)

The Heteroptera fauna of this formation is composed of the following faunal elements:

Cosmopolitan		Holarctic element		Palaearctic element		Euro-Siberian element		European element			
2 sp.	0,9%	20 sp.	8.9%	34 sp.	15.1%	31 sp.	13.8%	15 sp.	6.6%		
Mediterranean element		Pontomediterranean element		Anterior-Asian element		Turanian element		Mid-Asian element		Siberian-Mongolian element	
48 sp.	21.4%	17 sp.	7 5%	9 sp.	4%	3 sp.	1.3%	44 sp.	19.6%	2 sp.	0.9%

Among the above mentioned species 31 species were found only in this formation.

Subalpine zone

a) Spruce-fir forests

There are spruce-fir forests throughout almost the whole subalpine zone; they jut out in some places, into both the mixed forest and alpine zones. These formations occupy the largest areas in the investigated regions of Arkit, the Sary-Tchilek lake district (the Northeastern part of the Tchatkal ridge) and Kara-Alma (the Southwestern part of the Fergana

ridge), and also, to a lesser degree, on the Pskem and Ugam ridges. The spruce-fir forests are not as a rule continuous, but rather represented by separate islands or narrow periodically interrupted stripes. The forests in question consist of Schrenk's spruce (*Picea schrenkiana*) and Semenov's fir (*Abies semenovi*) usually with a scattering of Turkestan maple (*Acer turkestanica*) and juniper (*Juniperus semiglobosa*, *J. serawschanica*). The juniperetum of the subalpine belt is better expressed in the Northeastern part of the Tchatkal ridge. The undergrowth consists chiefly of thickets or separate bushes; *Lonicera karelini*, *L. persica* and *Spirea hypericifolia*. There is a characteristic plain formation among the high grass-meadows and high mountain steppes, about which more will be said below.

I have succeeded in finding only two representatives of Hemiptera: *Dichrooscythus pseudosabinae* Reut. and *Aradus lugubris* Fall. The Lygaeidae mentioned below are constantly found under *Juniperus semiglobosa*; *Dichrooscythus pseudosabinae* Reut. is bound to *Juniperus serawschanica*.

The species of bugs found in this forest formation are mainly composed of Palaearctic (21%) and Mid-Asian (48%) elements only.

The following species have been ascertained:

<i>Anthocoris pilosus</i> Jak.	<i>Trapezonotus arenarius</i> (L.)
* <i>Dichrooscythus pseudosabinae</i> Reut.	<i>Rhyparochromus pini</i> (L.)
<i>Lygus pachynemis</i> Reut.	<i>Rhyparochromus sogdianus</i> Kir.
<i>Orthops sanguinolentus</i> Reut.	* <i>Aradus lugubris</i> Fall.
<i>Orthops kalmi</i> f. <i>orientalis</i> Reut.	<i>Carpocoris fuscispinus</i> (Boh.)
<i>Coranus subapterus</i> (Ceer)	<i>Dolycoris penicillatus</i> Horv.
<i>Pyrhocoris apterus</i> (L.)	<i>Rhaphigaster brevispina</i> Horv.
<i>Lygaeus rubriceps</i> Horv.	* <i>Picromerus bidens</i> (L.)
<i>Megalonotus chiragra</i> (Fabr.)	<i>Acanthosoma forcipatum</i> Reut.
<i>Peritrechus geniculatus</i> (Hahn.)	

Holarctic element		Palaearctic element		Euro-Siberian element		European element		Mid-Asian element	
2 sp.	10,5%	4 sp.	21%	2 sp.	10,5%	2 sp.	10,5%	9 sp.	47,5%

Among the abovementioned species 3 species were found only in this formation.

b) High grass subalpine meadows and high mountain steppes

These vegetations are closely connected with the spruce-fir forests but they occupy considerable areas, particularly in the Fergana, Tchatkal and Ugam ridges. The subalpine meadows are mostly on northern slopes (in the Ugam ridge, the subalpine meadows occupy both slopes, and sometimes come as low as 1800 m.); and there are mesophyll meadows, which consist of *Iris rutenica*, *I. alberti*, *Allium monadelphum*, *Poa nemoralis*, *Geranium collinus*, *Hordeum turkestanicum*, *Codonopsis ovata*,

Polygonum coriarium, *Stellaria media*, *Campanula glomerata* and others. Knotweed (*Polygonum coriarium*) is important and grows in the drier places with *Dactylus glomerata*, *Urtica* sp., *Ferula foliosa* and others.

In some places, in particular around the Sary-Tchilek lake they underwent great changes, owing to the direct influence of man (grazing cattle, cutting down of trees); i. e. the inedible plants such as *Prangos pabularia*, *Ferula ferganensis*, *Eremurus fuscus*, *Eremurus robustus* are strongly represented. The sage-brush associations of the steppe type occupy relatively small areas in such places, with *Artemisia persica*, and also *Cirsium turkestanicum* and *Cirsium lanceolatum*. These formations were called by the Soviet botanist S. E. Korovin (Korovin, 1959), the high mountain steppe. The soil is brown and lixiviated.

Besides the species already recorded, *Oncotylus reuteri* (Osh.) *Myrmecophyes monticola* Horv., *Rhinocoris kiritshenkoi* Y. Pop. and *Acanthosoma forcipatum* Reut. feed on *Prangos pabularia*; *Graphosoma lineatum* (L.) and *Gr. consimile* Horv. on *Ferula ferganensis* and *F. foliosa*; *Macrotylus cruciatus* (Sahlb.) on *Hypericum perforatum*; *Charagochilus gyllenhalii* (Fall.), *Campyloneura decorata* Kir., *Globiceps fulvicollis* f. *cruciatus* Reut., *Psallus cognatus* Jak., *Chlamidatus pullus* (Reut.), *Monosynamma basale* (Reut.) and *Kleidocerys resedae* (Panz.) on *Spiraea hypericifolia*; *Neides tipularius* on *Ziziphora bungeana*.

The species of bugs discovered in these formations are composed mainly of Holarctic (15.6%), Palaearctic (18.7%) and Mid-Asian (32.7%) elements.

The following species have been ascertained:

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|--|---|
| <i>Anthocoris pilosa</i> Jak. | <i>Criocoris quadrimaculatus</i> (Fall.) |
| <i>Stenodema calcaratum</i> (Fall.) | <i>Plagiognathus chrysanthemi</i> (Wolff) |
| <i>Stenodema trispinosum</i> (Reut.) | <i>Plagiognathus albipennis</i> (Fall.) |
| <i>Stenodema virens turanicum</i> (Reut.) | <i>Rhinocoris kiritshenkoi</i> Y. Pop. |
| <i>Notostira erratica</i> (L.) | <i>Rhinocoris monticola</i> Osh. |
| * <i>Phytocoris kirgisis</i> Y. Pop. | <i>Coranus subapterus</i> (Geer) |
| <i>Adelphocoris lineolatus</i> (Goeze) | <i>Pyrrhocoris apterus</i> (L.) |
| <i>Trigonotylus ruficornis</i> (Geoffr.) | <i>Lygaeus rubriceps</i> Horv. |
| <i>Calocoris fedtschenkoi</i> Reut. | <i>Nysius groenlandicus</i> (Zett.) |
| <i>Brachycoleus decolor</i> f. <i>marginata</i> Stich. | <i>Cymus obliquus</i> Horv. |
| <i>Lygus pratensis</i> (L.) | <i>Ischnodemus sabuleti</i> (Fall.) |
| <i>Lygus pachynemus</i> Reut. | <i>Heterogaster cathariae</i> (Geoffr.) |
| <i>Lygus lucorum</i> Mey | <i>Heterogaster parens</i> Jak. |
| <i>Orthops kalmi</i> f. <i>orientalis</i> Reut. | <i>Heterogaster artemisiae</i> Schill. |
| <i>Orthops stanquiolentus</i> Reut. | <i>Kleidocerys resedae</i> (Panz.) |
| <i>Charagochilus gyllenhalii</i> (Fall.) | <i>Megalonotus chiragra</i> (Fabr.) |
| <i>Dicyphus montanus</i> Popp. | <i>Peritrechus geniculatus</i> (Hahn.) |
| * <i>Dicyphus testaceus</i> Reut. | <i>Trapezonotus arenarius</i> (L.) |
| <i>Orthocephalus bivittatus</i> Fieb. | <i>Aphanus rolandi</i> (L.) |
| <i>Halticus apterus</i> (L.) | <i>Rhyparochromus pini</i> (L.) |
| <i>Orthotylus turanicus</i> Reut. | <i>Rhyparochromus sogdianus</i> Kir. |
| <i>Myrmecophyes monticola</i> Horv. | <i>Neides tipularius</i> (L.) |
| <i>Myrmecophyes tibialis</i> Reut. | <i>Campopus lateralis</i> (Germ.) |
| <i>Oncotylus reuteri</i> (Osh.) | <i>Corizus hyoscyami</i> (L.) |
| <i>Macrotylus cruciatus</i> (Sahlb.) | <i>Stictopleurus abutilon</i> (Rossi) |
| <i>Acrotelus pilosicornis</i> (Reut.) | <i>Graphosoma lineatum</i> (L.) |
| <i>Orthonotus fuscicornis</i> (Reut.) | <i>Graphosoma constmille</i> Horv. |
| * <i>Psallus cognatus</i> Jak. | <i>Sciocoris distinctus</i> Fieb. |

Aelia acuminata (L.)
**Risibia mimula* (Kir.)
Carpocoris fuscispinus (Boh.)
Dolycoris penicillatus Horv.

Eurydema oleracea (L.)
Zicrona coerulea (L.)
Acanthosoma forcipatum Reut.

The Heteroptera fauna of this formation is composed of the following faunal elements:

Holarctic element		Palearctic element		Euro-Siberian element		European element			
10 sp.	15,6%	12 sp.	18,7%	5 sp.	7.8%	6 sp.	9.4%		
Mediterranean element		Pontomediterranean element		Anterior-Asian element		Mid-Asian element		Siberian-Mongolian element	
6 sp.	9.4%	1 sp.	1,6%	2 sp.	3.2%	21 sp.	32.7%	1 sp.	1.6%

Among the abovementioned species 4 species were found only in this formation.

5. Alpine meadows

Alpine meadows occupy relatively small areas of the alpine zone of the southern regions of Tien-Shan, where they give way to rocks and talus almost devoid of plant cover. Only rocks are covered in some places with separate pillows of the creeping form *Juniperus turkestanica* and *J. semiglobosa*.

The characteristic feature of this plant formation is the predominance of onion (*Allium monadelphum*). There are many other plants with it (*Geranium collinum*, *Potentilla hololeuca*, *Bistorta nitens*, *Oxyria digyna*, *Polygonum coriarium*, *Poa bucharica*, *Hordeum turkestanicum*, *Allium polyphyllum*).

The hemipteran fauna of the alpine meadows is not rich, but it is fairly specific: the species of bugs consist only of Palearctic (25%) and Mid-Asian (75%) elements, where all the Mid-Asian species are high mountain species.

Orthops kalmi f. *orientalis* Reut.
Orthops sanguinolentus Reut.
Myrmecophyes monticola Horv.
Myrmecophyes tibialis Reut.

**Scirtetellus seminitens* Horv.
Rhyparochromus pini (L.)
**Mimula nigrita* Jak.
**Jalla dumosa* (L.)

Among the above mentioned species 3 species were found only in this formation.

6. Flood land

The vegetation of the flood land forms a more or less broad strip along the large and small rivers of Mid-Asia. The flood land plant zone may be divided into the region of the foothill "tugay" (the lower "tugay") and the region of the mountain "tugay" (the upper "tugay").

The plants form so called "tugay forests" which are made up chiefly of poplar (*Populus bolleana*), willow (*Salix wilhelmsiana*), and rarely ash (*Fraxinus potamophila*), and thickets of bushes (*Crataegus turkestanica*, *C. songorica*, *Berberis oblona*, *Prunus sogdiana*, *Hippophae rhamnoides*, *Rosa kokanica*, *R. fedtschenkoana*, *Tamarix ramosissima*, *Myricaria germanica*, *M. alopecuroides*). *Atraphaxis pyrifolia* sometimes occurs in the lower "tugay", and *Betula turkestanica* in the upper "tugay" and the subalpine zone. Apple-trees (*Malus kirghizorum*) and nut-trees (*Juglans regia*) are present.

The grass layer is represented chiefly by *Achillea filipendulina*, *A. millefolium*, *Rindera tetraspis*, *Echium vulgare*, *Nepeta maria*, *N. pannonica*, *Calamogrostis pseudofragmites*, *Carex flava*, *Epilobium hirsutum*, *Galium verum*.

Megalocoelus molliculus (Fall.) and *Metopoplax origani* (Kol.) collected in quantity on *Achillea filipendulina*, and also *Codophila varia* (Fabr.), *Dolycoris penicillatus* Horv., *Carpocoris fuscispinus* (Boh.), *Rhopalus subrufus* (Gmel.), *Gorizus hyoscyami* (L.), *Gonocerus patellatus* Kir. and *Lygaeus rubriceps* Horv. on *Achillea millefolium*; *Odontotarsus purpureolineatus* (Rossi), *Odontotarsus furvus* Kir., *Dolycoris penicillatus* Horv. and species of genus *Eurydema* on *Nepeta maria*; *Gonocerus patellatus* Kir. and *Palomena prasina* (L.) on *Epilobium hirsutum*; *Tuponia elegans* (Jak.) and *Artheneis alutacea* Fieb. on *Tamarix ramosissima*; *Tuponia sahlbergi* Reut. and *Eumecotarsus brevipes* Reut. on *Myricaria allopecuroides*; *Nysius ericae* (Schill.) on *Artemisia vulgare*; *Octacysta rotundata* (H.-S.) and *Dictyla echii* (Schrk.) on *Rindera tetraspis*. *Anthemina varicornis* found in quantity in the water-filled fields of the semi-desert zone; *Rhinocoris kiritchenkoi* Y. Pop. collected under stones quite near the water in the forest zone.

The species of bugs found in these intrazonal areas are composed mainly of Palaearctic (19.8%), Euro-Siberian (16.9%), Mediterranean (21.7%), Pontomediterranean (12.3%) and Mid-Asian (12.3%) elements.

The following species have been ascertained:

Orius niger (Wolff)
Stenodema calcaratum (Fall.)
Notostira erratica (L.)
Trigonotylus ruficornis (Geoffr.)
Adelphocoris lineolatus (Goeze)
Calocoris fedtschenkoi Reut.
Brachycoleus decolor f. *marginata* Stich.
Lygus pratensis (L.)
Agnocoris rubicundus (Fall.)
Orthops kalmi (L.)
Polymerus unifasciatus (Fabr.)
Polymerus vulneratus (Panz.)
Charagochilus gyllenhali (Fall.)
Capsus cinctus (Kol.)
Deraeocoris scutellaris (Fabr.)
Deraeocoris serenae (Dgl. et Sc.)
Deraeocoris punctulatus (Fall.)
Deraeocoris pilipes Reut.
Pilophorus sinuaticollis Reut.

Halticus pussilus (H.-S.)
Globiceps fulvicollis f. *cruciatus* Reut.
Orthotylus marginalis Reut.
Megalocoleus molliculus (Fall.)
Amblytulus testaceus Reut.
Macrotylus cruciatus (Sahlb.)
Orthonotus fuscicornis (Reut.)
Criocoris quadrimaculatus (Fall.)
Plagiognathus chrysanthemi (Wolff.)
Plagiognathus fulvipennis (Krschb.)
Plagiognathus albipennis (Fall.)
Plagiognathus bicolor (Jak.)
Eumecotarsus brevipes (Reut.)
Chlamydatus pullus (Reut.)
Monosynamma basale (Reut.)
Tuponia elegans (Jak.)
**Tuponia sahlbergi* Reut.
Tuponia prasina (Fieb.)
Prostemma sanguineum (Rossi)

- Rhinocoris kiritschenkoi* Y. Pop.
Coranus subapterus (Geer)
Octacysta rotundata (H.-S.)
Dictyla echii (Schrk.)
Scantius aegyptius (L.)
Pyrrhocoris apterus (L.)
Lygaeus equestris (L.)
Lygaeus rubriceps Horv.
Melanocoryphus tristrani (Dgl. & Sc.)
Melanocoryphus superbus (Poll.)
Lygaeosoma reticulatum (H.-S.)
Nysius ericae (Schill.)
Nysius helvetius f. *ochraceus* Pop.
Ortholomus punctipennis (H.-S.)
Engistus exanguis Stål
Geocoris ater (Fabr.)
Geocoris ater f. *stevani* Put.
Artheneis alutacea Fieb.
Heterogaster cathariae f. *bicolor* Kol.
Heterogaster artemisiae Schill.
Metapoplax origani (Kol.)
Oxycarenus lacteus Kir.
Pionosomus opacellus Horv.
Lamprodema maurum (Fabr.)
Aphanus rolandri (L.)
Rhyparochromus albomaculatus (Goeze)
Rhyparochromus pini (L.)
Beosus quadripunctatus (Mull.)
Beosus maritimus (Scop.)
Emblethis denticollis Horv.
Emblethis ciliatus Horv.
Gonocerus patellatus Kir.
Coreus marginatus (L.)
Syromastus rhombeus (L.)
Coriomeris scabricornis (Panz.)
Coriomeris vitticollis (Reut.)
Camptopus lateralis (Germ.)
Corizus hyoscyami (L.)
Corizus limbatus fenestrellus (Horv.)
Litorhyssus hyalinus (Fabr.)
Rhopalus subrufus (Gmel.)
Rhopalus parumpunctatus (Schill.)
Rhopalus parumpunctatus f. *lepidus* (Fieb.)
Rhopalus distinctus (Sign.)
Stictopleurus abutilon (Rossi)
Macevethus lineola (Fabr.)
Brachycarenus tigrinus (Schill.)
Odontotarsus purpureolineatus (Rossi)
Odontotarsus furvus Kir.
Sciocoris deltocephalus Fieb.
Sciocoris distinctus Fieb.
Eurygaster integriceps Put.
**Eurygaster sodalis* Horv.
Graphosoma lineatum (L.)
Graphosoma consimile Horv.
Aelia acuminata (L.)
Palomena prasina (L.)
Carpocoris fuscispinus (Boh.)
Antheminia pusio (Kol.)
Codophila varia (Fabr.)
**Antheminia varicornis* (Jak.)
Eurydema maracandicum Osh.
Eurydema ornatum (L.)
Eurydema ornatum f. *decoratum* (H.-S.)
Eurydema ventrale Kol.
Eurydema oleraceum (L.)
Rhaphigaster brevispina Horv.
**Rhacognathus punctatus* (L.)
Zicrona coerulea (L.)
Tritomegas bicolor (L.)

The Heteroptera fauna of these intrazonal areas is composed of the following faunal elements:

Cosmopolitan		Holarctic element		Palaeartic element		Euro-Siberian element		European element	
2 sp.	1,9%	7 sp.	6,6%	21 sp.	19,8%	18 sp.	16,9%	4 sp.	3,8%
Mediterranean element		Pontomediterranean element		Anterior-Asian element		Turanian element		Mid-Asian element	
23 sp.	21,7%	13 sp.	12,3%	2 sp.	1,9%	3 sp.	2,8%	13 sp.	12,3%

Among the abovementioned species 4 species were found only in these areas.

In conclusion it may be said that the hemipteran fauna of all zones, without exception, is composed mainly of Mediterranean and Mid-Asian species, and to much lesser degree of Palaeartic species.

A brief zoogeographical review

The composition of the Heteroptera of the West Tien-Shan mountain regions as well as of Mid-Asia as a whole is very complicated and mixed. Study of the distribution of a series of hemipteran species collected in the Southern regions of Tien-Shan lead us to suggest that the hemipteran fauna of these districts has some specific characters. One of them is the combination of faunistic elements differing in their origins and distribution.

The zoogeographical distribution of Heteroptera has been dealt with previously by some Russian (Oshanin, 1891; Kiritshenko, 1913, 1916, 1938, 1939, 1949, 1951a, 1960; Puchkov, 1961, 1962) and foreign (Hoberlandt, 1948, 1951, 1952, 1953, 1954, 1955, 1959, 1960; Iosifov, 1954, 1961, and also Wagner, Tamanini and others) hemipterists, as well as by specialists on other groups of insects.

V. F. Oshanin (Oshanin, 1891), detailing the genera of the Mid-Asian hemipteran fauna, divides it on the basis of distribution into six groups:

1. Transpalaeartic genera.
2. Exclusively Mediterranean genera.
3. Mediterranean genera which have representatives in the other zoogeographical regions, but not in Euro-Siberian province.
4. Genera common in Mid-Asia and other faunistic areas, but lacking in Euro-Siberia and Mediterranean provinces.
5. Euro-Siberian genera.
6. Genera endemic for Mid-Asia.

In characterizing the hemipteran fauna of Mid-Asia A. N. Kiritshenko (Kiritshenko, 1931) agreed with these subdivisions, but made some additions, and was more precise.

While considering the species, V. F. Oshanin distinguished five faunistic groups: general Palaearctic, Mediterranean, Euro-Siberian, endemic and a group of species, extending into the neighboring countries. This subdivision of the faunistic groups is in general right, but insufficient for the zoogeographical treatment of such a relatively small region of Mid-Asia as the separate ridges of the Southern part of the West Tien-Shan. Besides it is worth while taking into consideration the fact that our knowledge of the systematics, ecology and geographical distribution of the Palaearctic Heteroptera has been enlarged, especially during the last decade, due to the works by L. Hoberlandt, Ed. Wagner, G. Seidenstücker, R. Linnavuori, M. Iosifov, H. Lindberg, T. Jaczewski, L. Tamanini, V. G. Puchkov, giving us a real opportunity to characterize any zoogeographical region more completely and in more detail.

In this connection it is interesting to refer to the zoogeographical analysis of the terrestrial Hemiptera of Turkey by L. Hoberlandt (Hoberlandt, 1955). This author distinguishes 15 zoogeographical elements. In my zoogeographical account there are 7 elements, mentioned by L. Hoberlandt: Cosmopolites, Holarctic, European, Euro-Siberian, Holomediterranean (Mediterranean), Pontomediterranean and Caspian. The name

"Caspian element" was substituted by "Turanian" as these species are distributed not only in the Caspian region, but also through the whole of the lowlands of Mid-Asian, the steppes of South-Western Siberia and Kazakhstan (Turanian species), and also in Iran, Iraq, Turkey, Caucasus and partly the South Europe (including the South European part of the USSR) (Pontomediterranean species). Besides, many doubtful "Caspian species" today quite correspond to this Turanian element and Pontomediterranean element. In mentioning the "Caspian element" concept I consider it necessary to say some words about V. G. Puchkov's works on hemipteran fauna of Ukraine, in which the author distinguished such a zoogeographical category as Kirghiz-Turanian (Puchkov, 1961), which was replaced by Kazakhstan-Turanian (Puchkov, 1962). Unfortunately the author did not explain this zoogeographical category and only mentioned it in a general zoogeographical table. Undoubtedly, the above-mentioned zoogeographical category corresponds to the Kirghiz province of A. P. Semenov-Tien-Shanski (Semenov-Tien-Shanski, 1936) and is a wider concept than the Caspian element.

The opinion was repeatedly expressed in zoogeographical literature on Mid-Asia about the including of a great number of highly specialized endemics, not only the species but also the genera and sometimes of a higher taxonomic level. On the base of the investigations of coleopteran fauna of Turkmenian deserts it was expressed view about the existence of a Turanian centre of evolution of sandy deserts and the intensity of autochthonous speciation in that centre (Kryzhanovskij, 1961). The influence of this centre and also the lowlands with solid soils (particularly hammadas) have told on the forming of the recent insect fauna of the low zones in foothills and mountain regions of West Tien-Shan: semi-desert (17.5%), steppe of the southern type (6.5%), mountain steppe (1.5%) and flood land (3%). The mountain regions, which are lying highest, have a specific fauna, differing from the below lying zones. On the one hand there are the great per cent of species with the wide distribution (Holarctic — 10.5%—15.5%, Palaearctic — 19.0%—25%) and the boreal species (8%—10.5%), on the other hand there are high mountain endemics including genera and many species (*Myrmecophydes*, *Mimula*, *Scirtetellus*, *Risibia*), which form endemic nucleus in the Mid-Asian mountains: Tien-Shan and Pamir-Alay.

Four principal faunistic groups of hemipteran species are considered in this work. These groups differ in their specific areas and centres of geographical distribution.

I Group of widely-distributed species.

1. Species distributed through the whole of world — Cosmopolitan.
2. Species widely distributed through the Palaearctic region, and also the Nearctic region — Holarctic species.
3. Species widely distributed through the Palaearctic region — Palaearctic species.

II Euro-Siberian group.

4. Species distributed through the forest, forest-steppe and steppe zones of Eurasia — Euro-Siberian species.

5. Species widely distributed through the forest, forest-steppe and steppe zones of Europe — European species.

III Holomediterranean group.

6. Species widely distributed through the Mediterranean region (the countries situated in the Mediterranean Sea basin) — Mediterranean species.

7. Species distributed through the East Mediterranean (Balkan Peninsula, Greece archipelago, Crete, Asia Minor, Cyprus, Crimea, Caucasus) — Pontomediterranean species.

8. Species distributed through the Great Desert Belt except the North Africa (from the Bospor strait, the Mediterranean and Red seas to the Iranian upland inclusively) — Anterior-Asian species.

IV Asian group.

9. Species distributed through the lower part of Mid-Asia, partly the foot-hills of Mid-Asia and the caspian part of Iran — Turanian species.

10. Species widely distributed through the foot-hills and mountain of Mid-Asia — Mid-Asian species.

11. Species distributed through Western and Eastern Siberia, Mongolia and Northern China, and also extending into Tien-Shan to the northern Fergana — Siberia-Mongolian species.

List of the species are collected by the author, according to the biogeographical elements

Species of the Cosmopolitan distribution.

Cimex lectularius L.

Rhopalus subrufus (Gmel.)

Liorhyssus hyalinus (Fabr.)

Holarctic species.

Stenodema (*Brachystira*) *trispinosum* (Reut.)

Nysius (s. str.) *ericae* (Schill.)

Stenodema (s. str.) *virens* (L.)

Nysius (s. str.) *groenlandicus* (Zett.)

Leptopterna ferrugata (Fall.)

Cymus claviculus (Fall.)

Adelphocoris lineolatus (Goeze)

Kleidocerys resedae (Panz.)

Lygus (*Apolygus*) *lucorum* (Mey)

Geocoris ater (Fabr.)

Polymerus (*Poeciloscytus*) *unifasciatus* (Fabr.)

Sphragisticus nebulosus (Fall.)

Halticus apterus (L.)

Trapezonotus (s. str.) *arenarius* (L.)

Cyrtorrhinus caricis (Fall.)

Emblethis griseus (Wolff)

Orthotylus (*Melanotrichus*) *flavosparsus* (Sahlb.)

Aradus lugubris Fall.

Oncotylus (s. str.) *punctipennis* Reut.

Alydus calcaratus (L.)

Plagiognathus (s. str.) *chrysanthemi* (Wolff)

Stictopleurus crassicornis (L.)

Zicrona coerulea (L.)

Cydnus aterrimus (Forst.)

Palearctic species.

- Stenodema (Brachystira) calcaratum* (Fall.)
Stenodema (s. str.) *laevigatum* (L.)
Stenodema (s. str.) *holsatum* (Fabr.)
Notostira erratica (L.)
Trigonotylus ruficornis (Geoffr.)
Lygus (s. str.) *pratensis* (L.)
Agnocoris rubicundus (Fall.)
Orthops kalmi (L.)
Polymerus (Poeciloscytus) cognatus (Fieb.)
Deraeocoris (Camptobrochis) punctulatus (Fall.)
Rhyparochromus (s. str.) *pini* (L.)
Scolopostethus affinis (Schill.)
Coreus marginatus (L.)
Coriomeris scabricornis (Panz.)
Corizus hyoscyami (L.)
Rhopalus parumpunctatus (Schill.)
Brachycarenum tigrinus (Schill.)
Odontoscelis fuliginosa (L.)
Eurygaster maura (L.)
Charagochilus gyllenhali (Fall.)
Liocoris tripustulatus (Fabr.)
Plagiognathus (Plioapterus) albipennis (Fall.)
Chlamydatus (Euattus) pullus (Reut.)
Coranus subapterus (Geer)
Phymata crassipes (L.)
Piesma maculatum (Lap.)
Piesma capitatum (Wolff)
Tingis (Tropidochila) pilosa Humm.
Pyrrhocoris apterus (L.)
Lygaeus equestris (L.)
Aelia acuminata (L.)
Neottiglossa leporina (H.-S.)
Holcostethus vernalis (Wolff)
Palomena prasina (L.)
Carpocoris fuscispinus (Boh.)
Carpocoris pudicus (Poda)
Eurydema (s. str.) *oleraceum* (L.)
Jalla dumosa (L.)
Aethus nigrinus (Fabr.)

Euro-Siberian species.

- Orius* (s. str.) *niger* (Wolff.)
Brachycoleus decolor f. *marginata* Stich.
Polymerus (Poeciloscytus) vulneratus (Panz.)
Polymerus (Poeciloscytus) brevicornis Reut.
Deraeocoris (s. str.) *scutellaris* (Fabr.)
Halticus pussilus (H.-S.)
Globiceps fulvicollis f. *cruciatus* Reut.
Orthotylus (s. str.) *marginalis* Reut.
Macrotylus cruciatus (Sahlb.)
Criocoris quadrimaculatus (Fall.)
Rhinocoris (s. str.) *iracundus* (Poda)
Dictyla echii (Schrk.)
Nysius (Macroparius) helveticus (H.-S.)
Ortholomus punctipennis (H.-S.)
Cymus glandicolor Hahn.
Megalonotus chiragra (Fabr.)
Megalonotus hirsutus (Fieb.)
Pterotmetus staphyliniformis (Schill.)
Pionosomus opacellus Horv.
Ischnocoris punctulatus (Fieb.)
Rhyparochromus (Raglius) alboacuminatus (Goeze)
Emblethis verbasci (Fabr.)
Emblethis ciliatus Horv.
Drymus (s. str.) *sylvaticus* (Fabr.)
Scolopostethus pilosus Reut.
Berytinus clavipes (Fabr.)
Irochrotus lanatus (Fall.)
Phimodera nodicollis (Burm.)
Graphosoma lineatum (L.)
Sciocoris cursitans (Fabr.)
Neottiglossa pusilla (Gmel.)
Anthemina lunulata (Goeze)
Picromerus bidens (L.)
Rhacognathus punctatus (L.)
Sehirus morio (L.)
Tritomegas bicolor (L.)

European species.

- Anthocoris pilosus* Jak.
Orthocephalus bivittatus Fieb.
Solenoxypus lepidus (Fabr. et Put.)
Megalocoleus molliculus (Fall.)
Plagiognathus (Chlorillus) alpinus (Reut.)
Plagiognathus (Zophocnemis) bicolor (Jak.)
Plagiognathus (s. str.) *fulvipennis* (Krschb.)
Psallus (s. str.) *cognatus* Jak.
Piesma kochiae (Beck.)
Tingis (Tropidochila) pauperata (Put.)
Cymus obliquus Horv.
Geocoris ater f. *steveni* Put.
Stygnocoris rusticus (Fall.)
Peritrechus geniculatus (Hahn.)
Scolopostethus lethierryi Jak.
Neides tipularius (L.)
Campsocoris punctipes (Germ.)
Bathysolen nubilis (Fall.)
Nemocoris falleni Sahlb.
Bagrada stolata Horv.
Legnotus pictipes (Fall.)

Mediterranean species.

- Trigonotylus pulchellus* (Hahn.)
Lygus (s. str.) *gemellatus* (H.-S.)
Deraeocoris (*Campptobrochis*) *serenus* (Dgl. et Sc.)
Oncotylus (*Cylindromelus*) *setulosus* (H.-S.)
Campylomma nicolasi Put. et Reut.
Prostemma sanguineum (Rossi)
Aspilaspis viridis (Brullé)
Ectomocoris ululans (Rossi)
Piesma maculatum f. *viridis* (Jak.)
Stephanitis (s. str.) *pyri* (Fabr.)
Tingis (s. str.) *auriculata* (Costa)
Agramma atricapilla (Spin.)
Scantius aegyptius (L.)
Pyrrhocoris marginatus (Kol.)
Melanocoryphus albomaculatus (Goeze)
Melanocoryphus superbus (Poll.)
Melanocoryphus tristrami (Dgl. & Sc.)
Lygaeosoma reticulatum (H.-S.)
Nysius (*Macroparius*) *cymoides* (Spin.)
Nysius (*Macroparius*) *graminicola* (Kol.)
Ischnodemus sabuleti (Fall.)
Henestaris halophilus (Burm.)
Engistus exanguis Stål
Artheneis alutacea Fieb.
Heterogaster cathariae (Geoffr.)
Heterogaster cathariae f. *bicolor* Kol.
Heterogaster artemisiae Schill.
Platyplax salviae (Schill.)
Microplax interrupta (Fieb.)
Metopoplax origani (Kol.)
Oxycarenus pallens (H.-S.)
Icus angularis Fieb.
Lamprodema maurum (Fabr.)
Plinthisus (s. str.) *brevipennis* (Latr.)
Peritrechus gracilicornis Put.
Aellopus atratus (Goeze)
Aphanus rolandi (L.)
- Beosus quadripunctatus* (Mull.)
Beosus maritimus (Scop.)
Ischnopeza hirticornis (H.-S.)
Emblethis angustus Mont.
Emblethis denticollis Horv.
Syromastus rhombeus (L.)
 f. *quadratus* (Fabr.)
Spathocera lobata (H.-S.)
Ceraleptus obtusus (Brulle)
Coriomeris hirticornis (H.-S.)
Camptopus lateralis (Germ.)
Rhopalus parumpunctatus f. *lepidus* (Fieb.)
Stictopleurus abutilon (Rossi)
Macevethus lineola (Fabr.)
Agraphopus lethierryi Stål
Chorosoma schillingi (Schill.)
Odontoscelis dorsalis (Fabr.)
Irochrotus maculiventris (Germ.)
Odontotarsus purpureolineatus (Rossi)
Psacasta (s. str.) *exanthematica* (Scop.)
Vilpianus galii (Wolff)
Ancyrosoma leucogrammes (Gmel.)
Tholagmus flavolineatus (Fabr.)
Sciocoris distinctus Fieb.
Sciocoris sulcatus Fieb.
Stagonomus (s. str.) *amoenus* (Brulle)
Stagonomus (*Dalleria*) *bipunctatus* (L.)
Eysarcoris inconspicuus (H.-S.)
Codophila varia (Fabr.)
Brachynema germari Kol.
Eurydema (s. str.) *ornatum* (L.)
Eurydema (s. str.) *ornatum* f. *decoratum* (H.-S.)
Eurydema (*Rubrodorsalium*) *ventrale* Kol.
Aethus pilosulus (Klug.)
Geotomus elongatus (H.-S.)

Pontomediterranean species.

- Orius* (*Heterorius*) *ribauti* E. Wagn.
Lygus (s. str.) *gemellatus* (H.-S.)
Capsus cinctus (Kol.)
Hallodapus suturalis (H.-S.)
Orthotylus (*Melanotrichus*) *fieberi* Frey
Amblytylus concolor Jak.
Amblytylus testaceus Reut.
Plagiognathus (s. str.) *bipunctatus* Reut.
Tropistethus fasciatus Ferr.
Plinthisus (s. str.) *hungaricus* Horv.
Rhyparochromus (*Xanthochilus*) *quadra-*
 tus (Fabr.)
Berytinus montivagus Mey
Coriomeris vitticollis Reut.
Rhopalus distinctus (Sign.)
Eurygaster integriceps Put.
Campylomma diversicorne Reut.
- Tuponia elegans* (Jak.)
Tingis (s. str.) *rotundicollis* (Jak.)
Octacysta rotundata (H.-S.)
Tropidothorax leucopterus (Goeze)
Apterola lowni (Saund.)
Geocoris fedtschenkoi Reut.
Campitotelus lineolatus (Schill.)
Megalonotus sabulicola (Thoms.)
Megalonotus colon Fieb. et Put.
Menaccarus arenicola (Scholtz.)
Sciocoris deltocephalus Fieb.
Aelia furcula Fieb.
Antheminia pusio (Kol.)
Antheminia varicornis (Jak.)
Eurydema (s. str.) *ornatum* f. *chloroticum* Horv.

Anterior-Asian species.

Stenodema virens turanicum Reut.
Nabis (s. str.) *palifer* Seid.
Pasira basiptera Stål
Rhinocoris (s. str.) *monticola* f. *jucunda* (Horv.)
Engistus exanguis Stål
Emblethis osmanus Seid.

Emblethis karamanus Seid.
Lethaeus picipes H.-S.
Centrocoris volxemi (Put.)
Coriomeris pallidus Reut.
Corizus limbatus limbatus Reut.
Odontotarsus impictus Jak.
Leprosoma tuberculatum Jak.

Turanian species.

**Polymerus* (*Poeciloscytus*) *dissimilis* Reut.*)
Oncotylus (s. str.) *desertorum* Reut.
Malthacosoma halimocnemis (Beck.)
**Reduvius christophi* (Jak.)
**Rhinocoris* (*Oncauchenius*) *abramovi* Osh.
Galeatus inermis (Jak.)
Catoplatus fulvicornis (Jak.)
Monosteira (s. str.) *discoidalis* (Jak.)
Leptodemus bicolor Lind.
**Oxycareus lacteus* Kir.
Bleteogonus beckeri (Frey)
**Corizomorpha janowskyi* Jak.
Stictopleurus unicolor Jak.

Odontotarsus angustatus Jak.
Melanodema carbonarium, Jak.
Eurygaster sodalis Horv.
**Ventocoris* (s. str.) *advenum* Horv.
**Ventocoris* (*Proselenodera*) *frater* Y. Pop.
**Ventocoris* (*Selenodera*) *ceriferum* (Horv.)
**Ventocoris* (*Selenodera*) *tataricum* Kirk.
Tarisa elevata Reut.
Graphosoma consimile Horv.
Aelia melanota Fieb.
**Holcostethus peltatus* Jak.
**Bagrada kaufmanni* Osh.

Mid-Asian species.

**Phytocoris kirgisicus* Y. Pop.
**Phytocoris confinis* Y. Pop.
**Adelphocoris jakovlevi* (Reut.)
Calocoris (s. str.) *fedtschenko*i Reut.
Brachycoleus decolor Reut.
**Dichroscytus pseudosabinae* Reut.
**Lygus* (s. str.) *pachynem*is Reut.
Orthops kalmi f. *orientalis* Reut.
**Orthops pilosulus* Jak.
Orthops sanguinolentus Reut.
Deraeocoris (*Camptobrochis*) *pilipes* Reut.
**Campyloneura decorata* Kir.
**Dicyphus* (*Mesodicyphus*) *montanus* Popp.
**Dicyphus* (*Mesodicyphus*) *testaceus* Reut.
**Dicyphus* (*Brachyceraea*) *thoracicus* Reut.
Dicyphus (*Brachyceraea*) *orientalis* Reut.
**Pilophorus sinuaticollis* Reut.
Orthotylus (*Melanotrichus*) *turanicus* Reut.
**Myrmecophyes monticola* Horv.
**Myrmecophyes limbatus* Reut.
**Myrmecophyes tibialis* Reut.
**Scirtetellus seminitens* Horv.
**Oncotylus* (s. str.) *reuteri* (Osh.)
**Orthonotus fuscicornis* (Reut.)
**Conirotodes kiritshenko*i Kerzh.
**Elumecotarsus breviceps* (Reut.)
**Monosynamma basale* (Reut.)

**Tuponia sahlbergi* Reut.
**Nabis* (s. str.) *ferghanensis* Rem.
**Holotrichius moestus* Reut.
**Rhinocoris* (*Oncauchenius*) *kiritshenko*i Y. Pop.
Rhinocoris (s. str.) *monticola* Osh.
Tingis (s. str.) *leptochila* Horv.
Catoplatus citrinus Horv.
**Lygaeus rubriceps* Horv.
**Melanocoryphus heydeni* Put.
**Xerophagi*us *aurora* Kir.
Nysius (*Macroparius*) *graminicola* f. *lucida* Y. Pop.
Nysius (*Macroparius*) *helveticus* f. *ochraceus* (Pop.)
**Holcocranum diminutum* Horv.
Heterogaster parens Jak.
Leptodemus minutus (Jak.)
**Plinthisus* (s. str.) *cautus* Y. Pop.
**Hadrocnem*is *rufescens* (Jak.)
**Bleteogonus circumcinctus* Reut.
**Rhyparochromus* (*Raglius*) *simplex* (Jak.)
**Rhyparochromus* (*Plinthurgus*) *sogdianus* Kir.
**Emblethis nigricans* Y. Pop.
**Gonocerus patellatus* Kir.
Haploprocta pustulifera Stål
**Enoplops eversmanni* Jak.
Dicranocephalus ferghanensis (Horv.)
**Odontotarsus furvus* Kir.

*) Endemic species are marked with a star.

**Oplistochilus pallidus* Jak.
 **Derula longipennis* Osh.
Apodiphus integriceps Horv.
 **Sciocoris agnatus* Jak.
 **Risibia mimula* (Kir.)
 **Holcostethus manifestus* Kir.
 **Mimula nigrita* (Jak.)

Dolycoris penicillatus Horv.
Eurydema (*Rubrodorsalium*) *maracandicum* Osh.
 **Priassus exemptus* (Walk.)
 **Rhaphigaster brevispina* Horv.
Acanthosoma forcipatum Reut.

Siberia-Mongolian species.

Acrotelus pilosicornis (Reut.)

Corizus tetraspilus Horv.

It is possible to show the abovementioned species in the following table:

Cosmopolitan		Holarctic species		Palaeartic species		Euro-Siberian species		European species			
3 sp.	0.9%	24 sp.	7.3%	39 sp.	11.3%	36 sp.	11%	20 sp.	6%		
Mediterranean species		Pontomediterranean species		Anterior-Asian species		Turanian species		Mid-Asian species		Siberia-Mongolian species	
70 sp.	21.2%	31 sp.	9.4%	14 sp.	4.3%	26 sp.	7.9%	64 sp.	19.5%	2 sp.	0,6%

Among the abovementioned species 56 species are endemics (16.2 per cent).

The great influence of the Mediterranean group, comprising about one third of all the collected species (over 30%), is noteworthy. Yet the greater part of the Mediterranean species lives in the steppe and tree-shrub zones. If a comparison is made of the ratio between the Mediterranean (*sensu lato*) and Mid-Asian species in the well studied area of Asia Minor (Hoberlandt, 1955) and in our investigated areas it is possible to see both the greater influence of the Mediterranean element (31%) in Mid-Asia and the lesser influence of the Mid-Asian element (8.5%) in Turkey. There are species which have exclusively desert distribution (North Africa, Sahara, Arabia, Asia Minor, Iran, Afghanistan), as *Pasira basiptera* Stål, *Engistus exanguis* Stål, *Brachynema germari* Kol. and some others, which was taken by the author (except *Brachynema germari* Kol. to the Anterior-Asian group).

Some Turanian and Mid-Asian species extend through the semidesert and steppe zones of South-Eastern Europe (Lower Volga and North-Western Caspian Sea) and South-Western Siberia; these species are possible to separate into Kazakhstan-Turanian group:

Brachycoleus decolor Reut.
Malthacosoma halimocnemis (Beck.)
Galeatus inermis (Jak.)
Holcocranum diminutum Horv.
Leptodemus minutus (Jak.)
Stictopleurus unicolor Jak.
Tarisa elevata Reut.

Some species, such as *Deraeocoris (Camptobrochis) pilipes* Reut., *Xerophagius aurora* Kir. and *Haploprocta pustulifera* Stål may be referred in my view to the Mongolia-Asian group, with a distribution throughout the northern part of the Mid-Asian part of the USSR, Mongolia and North-Western China.

Of particular note is the mesophyll relict, of tertiary origin, *Priassus exemptus* (Walk.). This species inhabites mesophyll walnut and mixed forests of the mountain part of Mid-Asia in a so called "tertiary refugium". In the author's opinion *Priassus exemptus* (Walk.) belongs to the Indo-Malayan group.

As to the Mid-Asia endemic forms, I have purposely not separated them into a special group, as, except for the localities from which they have been described, their distribution is very inadequately known. As was mentioned above the species endemic today are marked by a star. Yet it is possible to separate some species as mountain Mid-Asian endemics:

Dicyphus (Mesodicyphus) montanus Poop.
Myrmecophyes monticola Horv.
Myrmecophyes limbatus Reut.
Myrmecophyes tibialis Reut.
Scirtetellus seminitens Horv.
Risibia mimula (Kir.)
Mimula nigrita Jak.

Some species recorded in the West Tien-Shan part for the first time are: *Amblytylus testaceus* Reut., *Plagiognathus fulvipennis* (Fall.), *Camptylomna nicolasi* Put. et Reut., *Tingis rotundicollis* (Jak.), *Rhinocoris monticola* f. *jucunda* (Horv.), *Tropistethus fasciatus* Ferr., *Emblethis osmanus* Seid., *Emblethis karamanus* Seid. and others.

In conclusion, I wish to indicate that the relatively strongly endemic nature of the Mid-Asian heteropteran group of the explored mountain regions (17%) and also the presence of a rather great percentage of Euro-Siberian (11%), European (6%), Palaearctic (11.3%) and Holarctic (7.3%) species, are both undoubtedly connected with the frequently high situation of the localities in question, and particularly the specific mountain regions. At the same time, one can explain the great influence of the Mediterranean group by the southern location of the explored system of West Tien-Shan mountains, and also by influence of the desert and semidesert zones of the southern type in Mid-Asia.

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Резюме

Настоящая работа посвящена наземным Heteroptera, собранных только автором в южных районах Западного Тянь-Шаня в течение летних периодов 1957—1958 гг. Были исследованы горные районы и предгорья Ферганского, Чаткальского, Пскемского и Угамского хребтов. Дан аннотированный список видов, подвидов и форм общим числом 329, принадлежащих к 192 родам и 15 семействам. На основании наблюдений была сделана попытка предварительного эколого-зоогеографического анализа некоторых характерных биотопов. Все собранные виды принадлежат к 11 биогеографическим элементам. Из сборов были даны описания для следующих видов: *Rhinocoris (Oncauchenius) kiritshenkoi* J. Pop., *Plinthisus* (s. str.) *cautus* J. Pop., *Emblethis nigricans* J. Pop., *Trigonosoma (Proselodera) frater* J. Pop., *Priassus exemptus* (Walk.), *Eurydema (Rubrodorsalium) maracandicum* Osh. а также *Nysius helveticus* f. *ochraceus* Pop.

Summary

The present work is devoted only to those terrestrial Heteroptera collected by the author in the southern regions of the West Tien-Shan during the summers of 1957 and 1958. The areas investigated were the mountain and foothill regions of the Fergana, Tchatkal, Pskem and Ugam ridges. Annotated lists of the species, subspecies and forms of the Heteroptera (329 in total) are given. They belong to 192 genera in 15 families. On the basis of the observations a preliminary eco-zoogeographical biotopes was attempted. All the species may be referred to eleven biogeographical groups. From the material collected the following species were described: *Rhinocoris (Oncauchenius) kiritshenkoi* Y. Pop., *Plinthisus* (s. str.) *horvathi* Y. Pop., *Emblethis nigricans* Y. Pop., *Trigonosoma* Y. Pop., *Plinthisus* (s. str.) *cautus* Y. Pop., *Emblethis nigricans* Y. Pop., *Trigonosoma maracandicum* Osh. and also *Nysius helveticus* f. *ochraceus* Pop.

Zusammenfassung

Die vorliegende Arbeit ist den nur vom Verfasser im südlichen Teil des West Tien-Schan während Sommerzeiten 1957 und 1958 gesammelten Landwanzen gewidmet. Die Berg- und Vorbergregionen der Fergana, Tschatkal, Pskem und Ugam Rücken waren besucht und geforscht. Die annotierte Liste der Arten, Unterarten und Formen von Heteroptera gesamt 329, die aus den 192 Gattungen und 15 Familien stammen, ist beigefügt. Auf Grund der Beobachtungen ist ein Versuch der vorläufigen ökologisch-zoogeographischen Analyse einiger kennzeichnenden Biotopen gemacht. Alle diese Arten gehören zu 11 biogeographischen Elementen. Für die nächsten Arten der Sammlung sind Beschreibungen beigefügt: *Rhinocoris (Oncauchenius) kiritshenkoi* Y. P., *Plinthisus* (s. str.) *cautus* Y. Pop., *Emblethis nigricans* Y. Pop., *Trigonosoma (Proselodera) frater* Y. Pop., *Priassus exemptus* (Walk.), *Eurydema (Rubrodorsalium) maracandicum* Osh. Y. Pop., *Priassus exemptus* (Walk.), *Eurydema (Rubrodorsalium) maracandicum* Osh. und *Nysius helveticus* f. *ochraceus* Pop.