

New *Paranysius*-species from the Asian part of the U. S. S. R. (Heteroptera, Lygaeidae)

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During the study of some material of Lygaeidae collected in the Asian part of the USSR (Central Kazakhstan and Central Tien-Shan) two new species of Heteroptera were found belonging to the genus *Paranysius* Horv. Holotypes, males are preserved at the Zoological Institute in Leningrad.

The new species belong to the „*fraterculus*“ group composed of the westmediterranean *Paranysius perplexus* (Put.), the holomediterranean *P. fraterculus* Horv. and the mid-asian *P. oshanini* (Kir.). *Paranysius fraterculus* Horv. is distributed throughout the southern parts of USSR (Transcaucasia, Mid-Asia and South of Siberia)¹). It was known as *Xerophagius aurora* Kiritshenko, 1913, in Russian literature (Kiritshenko, 1948, 1952, 1954, 1964; Tsherepanov & Kiritshenko 1962; Asanova 1962; Popov 1965). Yet owing to the modern careful investigation of L. Hoberlandt (1967) on the genus *Paranysius* Horv. the last species turned out the junior synonym to *P. fraterculus* Horv. Thus the genus *Paranysius* Horv. contains six species of which five species belong to the second group of „*fraterculus*“ at the present time.

The new species *P. nigrimontanus*, n. sp. and *P. kasachstanicus*, n. sp. are nearest to *P. fraterculus* Horv., particularly the last one. They are separated very well by the colour of the dorsal surface of body and the structure of genitalia, and also by pronotum.

For a new key to the genus *Paranysius* by L. Hoberlandt (1967) the described species must be placed on point “7”.

Key to the *Paranysius*-species of „*fraterculus*“ group

7. Antennae and legs pale yellowish brown, femora brownish spotted; head, pronotum, scutellum and hemelytra unicolourous stramineous, without blackish margins. Calli brownish. Membrane whitish, hyaline. Parameres only in apical part narrowed and slightly turning upwards *oshanini* (Kir.)
- Antennae and legs black, blackish or blackish brown; head, pronotum, scutellum and hemelytra ochraceous or reddish with black or blackish markings or almost black 8.

¹) This species was found by the author in the mountain steppe of Saur ridge (Eastern Kazakhstan) on *Artemisia* as well.

8. Predominant colour black; head, pronotum, scutellum and hemielytra widely black; a middle narrow longitudinal stripe of pronotum and lateral longitudinal marginal margins of hemielytra dark ochraceous or yellowish (fig. 2). Head seen from side not more 1.3 times higher than long. Opening of genital segment narrowed to the anterior margins diaphragma with distinct lateral lobes (fig. 5); parameres as in figure 10—12 *nigrimontanus* n. sp.
- Predominant colour ochraceous, reddish or brick-red. Body slender. Head seen from side more than 1.3 times higher than long 9.
9. Predominant colour pale ochraceous; clypeus, frons and vertex dark, pronotum with two wide dark brown longitudinal stripes (fig. 3). Bucculae very low. Opening of genital segment widely truncated; diaphragma with strong developed lateral lobes (fig. 4); parameres as in figure 7—9 *kasachstanicus*, n. sp.
- Predominant colour reddish or brick-red; head always of grund colour, sometimes clypeus and two spots at the base of head dark; pronotum without distinct dark longitudinal stripes or with two less wide ones than above species reaching only to calli (fig. 1); Bucculae low. Opening of genital segment less rounded in front; diaphragma with weak distinct lateral lobes (fig. 6); parameres as in figure 13—15 *fraterculus* Horv.

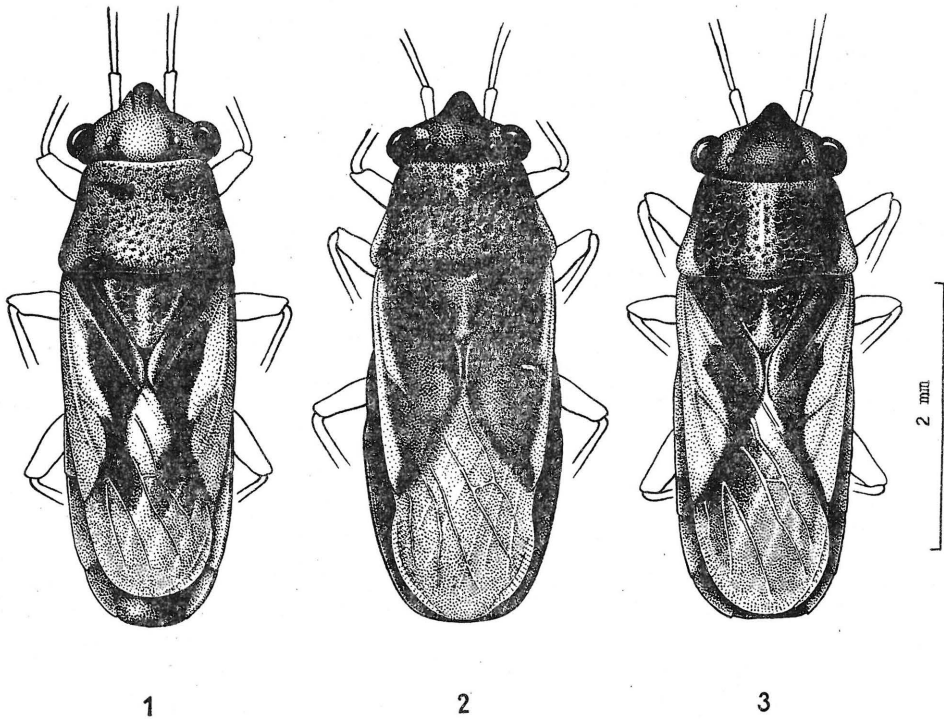


Fig. 1: *Paranysius fraterculus* Horv. Fig. 2: *Paranysius nigrimontanus*, n. sp., male, holotype.
 Fig. 3: *Paranysius kasachstanicus*, n. sp., male, holotype.

***Paranysius nigrimontanus*, n. sp.**

(fig. 2)

Male. Length 4.0—4.2 mm, width 1.5—1.55 mm. Head: length 0.6—0.65 mm, width 1.07—1.12 mm, synthlipsis 0.68—0.7 mm. Antennae: length of joint I, 0.2—0.23 mm; II, 0.45—0.51 mm; III, 0.41—0.5 mm; IV, 0.6—0.67 mm. Pronotum: length: 0.75—0.8 mm, width 1.35—1.4 mm. Scutellum: length 0.5—0.55 mm, width 0.65—0.7 mm.

General shape of the body elongate, being 2.7 times as long as broad, with slightly enlarged backwards lateral sides, broadest across IV—V segments of abdomen.

Predominant colour black, with very narrow longitudinal stripes of pale yellowish or dark ochraceous. Head all black except small ochraceous spot at the inner margin of eyes. Eyes dark brownish. Antennae and rostrum black; antennal projectious black, apex yellowish. Bucculae black, apex yellowish. Pronotum almost wholly black, oblique glabrous calli in the anterior part of pronotum shining black or brown; ochraceous longitudinal middle stripe 3.5 on 4 times as narrow as black lateral stripes, slightly enlarged towards the anterior margin; posterior lateral margins yellowish or dark ochraceous. Scutellum black except callosity; apex or also middle part yellowish. Pleurae of prothorax or also of meso- and metathorax partly whitish; spiracles of mesothorax ochraceous. Coxae, apex of femora whitish; femora, tibiae and tarsi black. Hemelytra almost wholly black except pale ochraceous or dark reddish lateral margins or also the apical part of clavus; membrane semitransparent, blackish or dark brownish, with whitish veins. Sternites of abdomen black, connexivum black or dark brown, the outer margin ochraceous or reddish; genital segment black. Punctuation of head coarse and distinct, hemelytra and abdomen finely and densely punctate. All pubescence and hairs whitish.

Head 1.7 times as broad as long, head seen from side 1.18 — 1.25 times as high as long; clypeus slightly convex. Ocelli small, distance between eyes and ocelli 1.5 times as long as the diameter of one ocellus. Buccula narrow, the same high along entire length, anteriorly with the smallest thickening. Rostrum reaches to middle coxae. Antennae 1.5 times as long as width of head across eyes; antennae with short dense pubescence and suberect hairs, as long as width of respective joint; relative length of antennal joints 12 : 23 : 21 : 26.

Pronotum transversal, posteriorly 1.8 times as broad as long; slightly narrowed into the anterior direction, anterior margin hardly concave, posterior margin almost straight and 1.5 times as broad as anterior margin, lateral margins straight; sutura of pronotum with regularly dispersed fairly dense deep pits, particularly in the posterior half; calli sinuate and oblique to the anterior angles. Thorax with coarse dispersed punctuation; pleural area with pits similar to these of pronotum.

Scutellum 1.3 times as broad as long, with slightly roundish lateral sides and broad apex; anteriorly hardly elevated, posteriorly in the middle longitudinally raised; surface of scutellum lateral to the longitudinal ridge with sparse pits similar to these of pronotum.

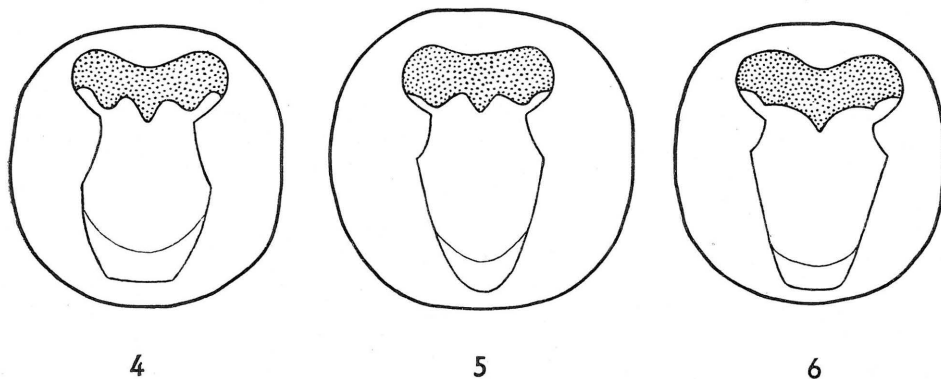
Hemelytra reaching to the apex of abdomen, lateral and posterior margins

of corium straight; corial veins are not distinct; membrane with veins well distinct.

9th male genital segment globular, below oblique truncate, seen from above roundish and depressed; genital opening (fig. 5) strongly narrowed to the anterior side and distinctly rounded at the apex, the lateral projections hardly reach to the middle transversal line between lateral margins, the posterior margin being distinctly less than distance between apex of lateral projections; diaphragma with developed lateral lobes, the apex of medial lobe slightly overreaching lateral lobes. Parameres seen from side with strongly rounded almost oblique truncated angle, apex distinctly turning upwards, parameres seen at the front thick, slightly narrowed to the base (fig. 10—12).

Female. Length 4.8—5.0 mm, width 2.0—2.2 mm. Head: length 0.75—0.9 mm, width 1.22—1.32 mm, synthlipsis 0.85 mm. Antennae: length of joint I, 0.25—0.3 mm; II, 0.55—0.57 mm; III, 0.45—0.47 mm; IV, 0.62—0.7 mm. Pronotum: length 0.95—1.15 mm, width 1.65—1.85 mm. Scutellum: length 0.6—0.62 mm, width 0.82—0.9 mm.

General shape of the body relatively shorter and wider than in male being only 2.4—2.5 times as long as broad; lateral sides more distinctly enlarged backwards.



Male genital segments seen from above — fig. 4: *Paranysius kasachstanicus*, n. sp. Fig. 5: *Paranysius nigrimontanus*, n. sp. Fig. 6: *Paranysius fraterculus* Horv.

Longitudinal ochraceous stripes less narrow; lower part with ochraceous middle part of prothorax, posterior internal angles of meso- and metathorax and also lateral stripes of abdomen ochraceous.

Head seen from side 1.27 times as high as long. Pronotum 1.6 times as broad as long; lateral margins narrowed into the anterior direction; the middle part transversally pressed.

Other characters similar to these of male.

Material examined:

3 ♂♂ and 3 ♀♀ — USSR; Central Tien-Shan, the valley of Alyudyuryum river near Kokshaal-Tau ridge 3500 m., 6. VII. 1965, collected by R. Zlotin.

Distribution: USSR, Kirghiz SSR, Susamyr ridge.

According to the above mentioned work of A. N. Kiritschenko and the later work of L. Hoberlandt (1967) the greater number of species and subspecies of this genus under review spread through the steppe and semidesert or desert formations and also occur in arid mountains. In this respect *P. nigrimontanus*, n. sp. is some exception, occupying high mountain meadows above 3000 m.

***Paranysius kasachstanicus*, n. sp.**

(fig. 3)

Male. Length 3.85 mm, width 1.35 mm. Head: length 0.5 mm, width 1.1 mm, synthlipsis 0.7 mm. Antennae: length of joint I, 0.3 mm. Pronotum: length 0.75 mm, width 1.35 mm. Scutellum: length 0.5 mm, width 0.7 mm.

General shape of the body elongate, being 2.8 times as long as broad, with straight parallel sides, broadest across posterior margin of pronotum.

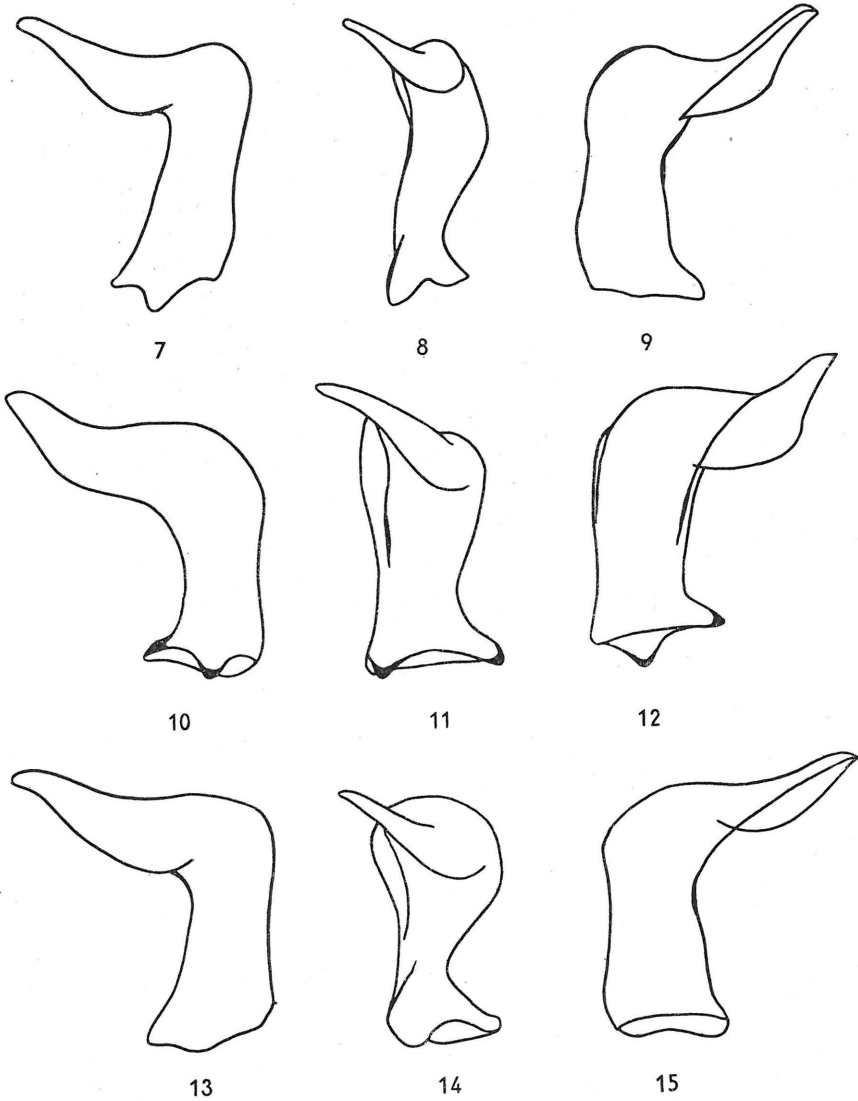
Predominant colour pale ochraceous with dark or dark brownish longitudinal stripes on the upper side, particularly wide stripes on pronotum. Head bicoloured, longitudinal stripe along? Whole surface of clypeus enlarging broadly towards the base of head; caudal part of head ochraceous or dark brownish; bucculae pale; rostrum brown; pronotum with two wide lateral longitudinal dark stripes fusing anteriorly with lateral margins; medial pale ochraceous stripe half the width of the dark neighbouring lateral stripes; lateral margins posteriorly pale ochraceous. Scutellum dark except apical callosity and middle ridge of ground colour, lateral narrower callosity ridges light brown. Ventral side dark ochraceous or pale, sternite of prothorax pale ochraceous, sternum of meso- and metathorax dark; outer areas of pleurae dark, with longitudinal lateral stripe. Legs dark brown except apex of tibiae and gemera. Clavus dark, apex pale; corium with dark curved stripe along inner margin which does not reach the base of hemelytra, other part pale ochraceous; membrane semi-transparent with dark brown or brownish stripes along white distinct veins. Sternites of abdomen dark ochraceous or covered with darkish wide markings in the middle part; connexivum intensely ochraceous; genital segment light brown. Puncturation of head coarse and distinct, hemelytra and abdomen finely and densely punctate. All pubescence and hairs whitish.

Head 2.2 times as broad as long, head seen from side 1.65 times as high as long; clypeus more or less flattened. Eyes distinctly prominent the anterior angles of pronotum; ocelli small, distinctly elevated above surface of vertex, distance between eyes and ocelli 1.7 times as long as the diameter of one ocellus. Bucculae very narrow, the same high along its whole length. Rostrum reaches middle coxae.

Pronotum transversal, posteriorly 1.8 times as broad as long; hardly narrowed in the anterior direction, anterior margin slightly concave, posterior margin almost straight and 1.5 times as broad as the anterior margin, lateral margins straight. Surface of pronotum with regularly dispersed fairly dense deep pits, particularly in the posterior half; calli sinuate and almost parallel to the anterior margin. Thorax with coarse dispersed puncturation, pleural area with pits similar to those of pronotum. Scutellum 1.4 times as broad as long, with slightly roundish sides and broad apex; anteriorly hardly and poste-

riorly in the middle longitudinally elevated; surface of scutellum lateral to the longitudinal ridge with sparse pits similar to those of pronotum.

Hemelytrae reaching to the apex of abdomen, lateral and posterior margins of corium stright; corial veins distinct, R fused in the posterior half, M comes off R and fused Cu; these veins spread into membrane.



Parameres in different aspects — figs. 7–9: *Paranysius kasachstanicus*, n. sp. Figs. 10–12: *Paranysius nigrimontanus*, n. sp. Figs. 13–15: *Paranysius fraterculus* Horv.

9th male genital segment globular, below oblique truncate, seen from above roundish and pressed; genital opening (fig 4) weakly narrowed to the anterior side and distinctly cut off at the apex, lateral projections overreaching the middle transversel line between lateral margins; the posterior margin equal in length to distance between apex of lateral projections; diaphragma with well developed lateral lobes, the apex of medial lobes distinctly displacing the lateral lobes (fig. 4). Parameres seen from side with distinctly moderate rounded angle, upper margins strongly sinuate, apex turning upwards; parameres seen from the front very narrow, one side forms angle at the middle part, narrowed to the base (fig. 7—9).

Female. Length 4,2 mm, width 2 mm. Head: length 0,6 mm, width 1,55 mm, syntlipsis 0,7 mm. Antennae: length of joint I, 0,3 mm, II 0,4 mm. Pronotum: length 0,9 mm, width 1,45 mm. Scutellum: length 0,55 mm, width 0,7 mm.

General shape of the body relatively shorter and wider (particularly a very wide connexivum) in male being only about twice as long as broad. Head seen from side 1,5 times as high as long. Pronotum 1,6 times as broad as long. The inner side of connexivum dark brownish.

Other characters similar to these of male.

Material examined:

Male — holotype and 1 ♀: USSR, Kazakh SSR, Koksengir mountain, 40 km to the South of Zhana-Arka; 29. VII. 1958, and 12. VIII. 1961, collected by R. Asanova.

The new species occurs in semidesert regions of mountains. *P. kasachstanicus*, n. sp. is derived from a form of *P. fraterculus* Horv. This corroborates such characteristic as smaller size, other colour and shorter head: 1.65 times as high as length (*P. fraterculus* : 1.2—1.5 times as high as length).

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